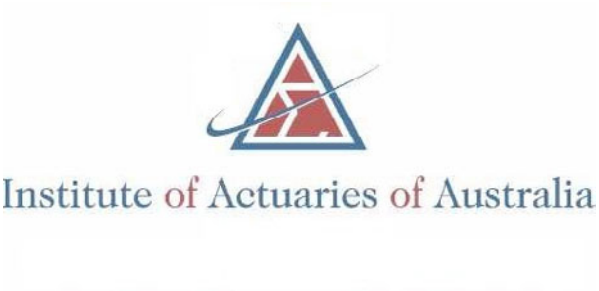

Initial Submission to the Productivity Commission

INQUIRY INTO NATIONAL WORKERS' COMPENSATION AND OCCUPATIONAL HEALTH & SAFETY FRAMEWORKS

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1 Executive Summary

Actuaries play a key role in the accident compensation and insurance industries and are uniquely positioned to provide a detailed insight into the dynamics of long-tail compensation benefits. The Institute of Actuaries of Australia (IAAust), as the sole professional body representing actuaries in Australia, has an obligation to inform debate in the public interest. This submission is intended to provide an objective view of the implications of policy change.

Workers compensation and occupational health and safety policy should combine to:

- minimise the incidence, severity and impact of workplace injuries and illness;
- as far as possible, return injured workers to health and productive work; and
- adequately compensate injured workers.

At present, there are substantial differences between the workers compensation and occupational health and safety provisions of the various Australian jurisdictions. These differences:

- add significantly to the cost of managing businesses that operate in more than one state;
- cause problems for service providers, particularly near borders;
- make it much harder to collect the data needed for scheme analysis;
- involve multiple policy development.

It is highly desirable to minimise these differences by adopting consistent definitions, benefits and administrative arrangements across all jurisdictions. While a single, national scheme would achieve this consistency, it can also be achieved through State schemes operating under national or agreed legislation.

It is important to view workers compensation and occupational health and safety as a whole. There are extensive interactions, between the components of these systems, and with the environment in which they operate. It is vital that the system provide incentives, for all involved, that promote the overall objectives stated above.

Private sector insurers are required follow APRA's prudential standard GPS 210 in the actuarial valuation of their insurance liabilities. This standard, appropriately modified, should also be followed by public sector insurers. Further, public sector insurers should charge actuarially determined premiums, on a fully funded basis.

Consistency is particularly important for employers operating in more than one jurisdiction. A national self-insurance framework is needed, which would allow at least large national employers to self-insure on a uniform basis across Australia.

The question of the role that private sector insurers should play in underwriting workers compensation is controversial, with strongly held views in favour of three models:

- fully private underwriting;
- fully public underwriting;
- public underwriting with private sector claim management

The IAAust does not express a preference for either private or public sector underwriting. There are successful and unsuccessful schemes under both models. Whatever model is adopted, it is important to avoid the design and governance problems that have led to past funding shortfalls, sharp price increases and difficulty finding cover, in both public and private sector schemes.

Actuaries have a key role to play in premium setting, valuation and the design and general financial management of workers compensation. Adequate data is essential to their performance of this role. The National Data Set should be revised and expanded to provide an adequate basis for actuarial analysis, in addition to its role in health and safety. A risk-based extension of Australia New Zealand Standard Industrial Classification (ANZSIC) is an important element in this revision.

Because of the limited time available for initial submissions, we have not attempted a comprehensive analysis of all the issues at this time. Rather, we have attempted to outline our views on selected topics and to suggest areas that the Commission should explore in its Interim Report. We intend to provide a further submission in response to that Interim Report.

The IAAust believes the Commission's Inquiry would benefit from independent actuarial costings. As a professional body, the IAAust does not have a vested interest in the outcomes of the Inquiry and as such would be happy to assist the Commission where appropriate.

2 IAAust Interest in Issues

The Institute of Actuaries of Australia (IAAust) is the sole professional body for actuaries in Australia. We represent the interests of over 1,250 Fellows and 1,300 other members.

The majority of IAAust's members are involved in the management, pricing and reserving for all forms of insurance: life, superannuation, liability, property and health.

A substantial number of our members specialise in general (liability and property) insurance. In this field, members are mainly involved in determining reserves for all classes of general insurance business, with a growing involvement in product design and pricing issues. Since 1 July 2002, members have had a statutory responsibility to advise boards of private sector insurance companies on balance sheet provisions for outstanding claim and premium liabilities, for each of the classes of general insurance specified by APRA.

Actuaries have long had a strong involvement in the provision of accident compensation, particularly Workers' Compensation. State and Territory Workers' Compensation Authorities retain actuaries to advise them on a range of matters, including reserving, pricing and scheme design. Since 1978, IAAust has been running a series of General Insurance and Accident Compensation Seminars, which are recognised as the premier forum for discussing financial management, design, pricing and reserving issues in this field. The most recent of these was an Accident Compensation Seminar, from 27-30 October 2002, in Adelaide.

In our role as general insurance professionals, we play an essential role in the sound design and pricing of all general insurance products, but especially of liability insurance, of which workers' compensation is a major part. Workers' compensation insurance poses particular challenges, not just because of the long-term nature of its inherent risks, but also because the purchasers (employers) are not the ultimate beneficiaries (injured workers). The inherent tensions between these two stakeholders mean that workers compensation policy has a strong public policy element.

While many actuaries work in and are, therefore, interested in the future of the insurance industry, IAAust, as a professional body, has an obligation under its constitution to contribute to and inform public debate on both practical and policy issues, in the interest of the general public. This submission is provided in this context and is intended to provide a balanced view of the implications of policy change in this area.

As a result of this background, and because of our general approach, which is based on the quantitative and mathematical analysis of financial systems, IAAust's members are uniquely placed to contribute both to a practical understanding of the financial issues involved and a sound grasp of the dynamics of the system.

3 Scope of the Inquiry

The scope of the inquiry is set out in paragraph 9 of the terms of reference, as set out in Appendix A. In addition, we believe that the Commission should address the following two issues.

> *(m) prudential supervision of public sector schemes and self-insurers – in particular what prudential standards they should be subject to and how those standards should be enforced; and*
>
> *(n) the collection, publication and analysis of data on a consistent basis.*

There is a variety of practice between the current public sector schemes, as to how premiums are set, how they are funded, and how funding is reported. The current National Data Set is, because of differences in benefits and administration, necessarily a lowest common denominator and inadequate for proper actuarial analysis. Both factors make it more difficult to properly analyse and formulate workers' compensation policy.

4 Discussion of Issues

4.1 Key Themes

While the following detailed discussion has been structured around the questions raised in paragraph 9 of your terms of reference, there are certain matters that cut across these questions.

4.1.1 Interactions

It is important to recognise that any workers' compensation and occupational health and safety scheme needs to be considered as a whole. There is an extensive range of interactions between various aspects of the scheme that must be considered. There are also important interactions with other sources of accident compensation and other sources of support for accident victims. Any changes to the workers compensation environment should bear in mind what is being done in this broader context.

One key set of interactions relates to the various incentives in the scheme. There should be appropriate incentives for employers, employees, service providers, insurers and regulators. These should all be aimed at reducing the incidence, severity and impact of workplace injuries and illness, and need to be considered as a package, combining health and safety regulations, benefit structures and premiums. Care is needed to avoid perverse incentives. There are tensions, for example, between the provision of adequate benefits, to minimise hardship, the need to encourage optimum recovery of the injured worker, and the cost, which is passed on from insurer to employer to society. It is also necessary to provide the means to respond to these incentives, in the form of positive assistance, training, management tools and research into best practice.

There are also important interactions between workers' compensation and other sources of compensation benefits and, in the current environment, between the workers compensation systems in different jurisdictions. We believe that a high value should be placed on consistency between the schemes in the different states and territories. Care is also needed to ensure that workers compensation integrates properly with alternative sources of benefit, such as unemployment, sickness and disability benefits, Medicare, CTP insurance, public liability insurance, etc.

4.1.2 Environment

It is also important to realise that any scheme exists in a dynamic environment. Economic, social, political, health, technological, industrial and employment conditions all change over time and may vary by jurisdiction, industry, etc. Workers compensation and occupational health and safety schemes must be able to adapt over time. They also need to be able to respond appropriately to the needs of different areas. Consistency and stability do not imply rigid uniformity. It is also necessary to expect that there will be unexpected consequences of any changes (and of some things that remain the same). It will be necessary to respond to these.

4.1.3 Actuarial Involvement

An important consideration in any recommendations that the Commission may make will be the cost of those recommendations. Actuaries are uniquely placed, by virtue of their training and experience, to provide the expertise needed to assess the cost of workers compensation benefits and to advise on the benefits of proposed changes. Actuaries working in this field are also, by virtue of their experience, well placed to advise on the practical implications of many of the non-financial aspects of workers compensation.

Because of the central place that such matters should take in the Commission's deliberations, we consider that it is vital for the Commission to obtain independent actuarial advice.

4.1.4 Consistency

This issue appears in several of the matters that the Commission has been asked to address.

Consistency is important for several reasons.

- It reduces the incentive for unproductive disputation as to what jurisdiction should apply.
- It makes it possible to collect data consistently across jurisdictions.
- If consistency is adopted as a principle, it avoids the need for duplication of effort when circumstances demand that these definitions be re-examined.
- It simplifies the administration of employers and service providers who operate across jurisdictional boundaries. The benefit to employers and insurers is obvious, but treating professionals would also benefit, particularly those operating near to such boundaries.

There are three main approaches to consistency.

- It can be achieved by a national scheme, operating under national legislation.
- It can be achieved by separate State and Territory schemes, operating under over-arching national legislation.
- It can be achieved by cooperation between the various State and Territory schemes.

4.2 (A) Consistent Definitions

We consider that it is highly desirable that consistent definitions of employer, employee, workplace, and work-related injury/illness and fatalities, relevant to both workers' compensation and occupational health and safety, should be adopted across Australia. Consistent definitions are also important for other key concepts, such as the base on which premiums are levied, the earnings used to calculate earnings-related benefits, etc. and, as noted in the next section, in relation to benefits.

In our view, the definitions adopted should embody the following principles.

- All definitions should be clear and unambiguous, so as to minimise the scope for disputes.
- The definitions of employer and employee should be wide, so as to minimise the scope for artificial arrangements, often involving employee hire firms and contractors, intended to evade the cost of providing workers compensation.
- The definitions of employer and employee should be consistent with each other, so that benefits are not provided where no premium is payable and premiums are not charged where no benefit is payable.
- The definitions of employer and employee should be structured so as to minimise disputes as to who is the employer in respect of a particular injury. In situations where there is more than one possible employer, as in the case of labour hire, the definitions should unambiguously attach the responsibility for both premiums and benefits to the same employer.
- More generally, all definitions should be consistent, where they interact.
- All definitions should be consistent between jurisdictions.

Although consistency can foster administrative efficiencies, we also recognise the importance of self-determination for the various states and their residents. There are legitimate differences of opinion on many aspects of benefit and product design which are reflected in the current variety of scheme structures.

4.3 (B) Consistent Benefit Structures

We consider that it is highly desirable that there should be consistent benefit structures that provide adequate levels of compensation, including income replacement and medical and related costs, for injured workers and their families. It is important to realise, however, that there are strong interactions between the benefit structure, benefit levels, the way in which benefits are administered and the environment in which the scheme operates. It is also important to realise that the level of benefits provided is a compromise between cost and adequacy, and to understand the relationship between benefit levels and cost.

Another important factor is that the benefit structure needs to accommodate a wide variety of injuries and needs to recognise that the impact of a particular injury can vary substantially. Some injuries occur suddenly, while others, such as asbestos, emerge gradually over a long period: possibly long after retirement. Some injuries arise from a single cause, while others have multiple causes, including recurrence and aggravation of old injuries. Some injuries are obvious, while others, such as muscle strains, are harder to pin down. In some cases, there is a pre-disposition to a certain form of injury, or the prognosis of the injury is age-related. Some injuries are resolved quickly, some get better gradually and some result in permanent impairment. The distinction between impairment and disability is also important. The impact of a particular impairment can vary substantially, according to the individual and the types of work available. Motivation and incentives are important factors.

4.3.1 Benefit Utilisation

The fundamental relationship is that the cost of any benefit is equal to the amount of the benefit multiplied by its utilisation rate. While this may seem obvious, most errors in scheme costing happen because of a failure to appreciate how the utilisation rate is affected by a variety of factors. The following sections discuss some of these.

4.3.2 Income Replacement Ratio

The utilisation of weekly benefits depends, in part, on the ratio of those benefits to pre-injury earnings. If the ratio is low, a proportion of potential claimants will "soldier on" and claimants who recover will try to return to work earlier, rather than later. If the ratio is high, there is a greater incentive to malinger and there will be less incentive to return to work early.

Analysis of disability insurance data collected by the Society of Actuaries in the US has suggested that, over a range of perhaps 50% to 75%, the utilisation rate is proportional to the income replacement ratio. Most workers compensation benefits are at a higher level than this, at least initially. When the income replacement ratio approaches 100%, the utilisation rate can increase quite sharply.

Since the cost of benefits is equal to the benefit rate multiplied by the utilisation rate, the relationship between income replacement ratio and cost is not linear, but at least quadratic and often stronger. A 1% increase in the income replacement ratio is likely to give rise to a cost increase of between 2% and 4%. This effect is strongest where job satisfaction is low, in unattractive, low-paid jobs, and can be exacerbated if there is a fixed minimum weekly benefit.

At the other end of the scale, utilisation can drop dramatically if the rate of weekly benefits falls below what is available from other sources, for example, unemployment benefits. This can happen for low-paid workers if there is no minimum weekly benefit.

4.3.3 Redemption

Redemptions have two opposing effects. On the one hand, claimants are usually prepared to accept less than the present value of the benefits redeemed. On the other, the lure of a lump sum can mean that claimants try to maintain their compensable status until the lump sum is paid. In extreme cases, this can seriously reduce the prospects of ultimate recovery.

Redemption is attractive to the insurer, because it replaces an income stream of uncertain value with a known lump sum. This can result in substantially lower administration costs, particularly if the claim is a difficult one, but does not necessarily result in lower total costs. The lure of a lump sum makes redemptions difficult to manage. Increased access to redemptions can result (and, in the past, has resulted) in cost blowouts due to high utilisation.

For the claimant, it can offer the opportunity to make a break and a fresh start. On the other hand, some claimants are unable to manage a lump sum properly, and end up falling back on the Social Security safety net. If care is not taken, it may be possible for the claimant to claim again, for aggravation or recurrence, without proper deduction for the earlier redemption. There is also a tendency for claims to be redeemed by those who are most disputatious, rather than those who would most benefit.

4.3.4 Thresholds

Thresholds are commonly used to eliminate trivial claims or to restrict access to particular benefits, such as Common Law damages or lump sums for permanent impairment. This can result in significant administrative savings, and helps to direct limited funds to those who have the greatest need.

Thresholds in benefit structures can, however, have perverse effects. A threshold creates an incentive for claimants near the threshold to try to meet it. This, in turn, can create a flow-on, if the same measure is used to set benefit levels. If claimants below the threshold are pushed over, others must also be pushed up, to avoid anomalies, and the benefit cost is increased for claimants that genuinely meet the threshold. This extra cost can sometimes exceed the saving from the claims that are eliminated. Care is needed in costing and to ensure that the threshold has the desired effect. These problems are eased, but not eliminated, if a deductible can be used instead of a pure threshold.

4.3.5 Benefit Substitution

When alternative benefits are provided for the same injury, claimants will generally choose the benefits that they value most highly. While this choice can be idiosyncratic, the general pattern is to favour the benefits of highest present value if they are in the same form, but lump sums are generally preferred to periodic payments with the same or rather greater value. Ease of access is also an important consideration.

Such choices can arise in a variety of ways. The simplest is when the scheme explicitly offers a choice. For example, there may be a choice between statutory or common law benefits. If access to common law is withdrawn, common law claims will revert to statutory benefits or seek other avenues. Redemption is another choice, which substitutes a lump sum for continuing benefits.

There may also be a choice between workers compensation and other means of redress, such as CTP, public liability and Social Security. Such choices can result in large diversions of cost between the various schemes, depending in which is most attractive. If Common Law remedies are not available under workers compensation, they will be sought under public or product liability. If long-term workers compensation income benefits are less attractive than unemployment or disability benefits, for example, most workers compensation claimants will discontinue when the long-term rate kicks in. Conversely, unemployed workers will seek to establish a compensable injury, if this gives better benefits. This choice is also strongly affected by requirements such as the job search test for unemployment benefits.

There are also hidden choices within workers compensation. Recovery and reintegration into the workforce is strongly influenced by motivation. A potential lump sum can have a powerful effect on this. Equally, there are many workers "carrying" injuries in order to retain employment. If the employer goes out of business, these injuries are likely to become claims. Employers can be influenced by benefit structure and substitution. The availability of redemptions, for example, can affect an employer's attitude to return-to-work programs.

Claimants will also react to a restriction on one form of benefit within a scheme by seeking to establish eligibility for other benefits. The clearest example of this can be seen in the common law environment. Where awards for pain and suffering have been restricted, other heads of damage are pursued more vigorously and the concept of a "buffer" has developed.

4.3.6 Environment

Peer pressure can have a major impact on scheme costs. If a "compensation culture" exists, then benefit utilisation will be high. The attitudes of government, the judiciary, employers, unions, insurers and legal and other advisers are all significant, and vary enough that apparently similar benefits can have significantly different costs in different parts of Australia.

4.3.7 Claim Administration

Claim administration can have a dramatic impact on the cost of benefits. If it is based on the premise that all claims are genuine and, therefore, do not need to be investigated, a very large cost blowout can be expected. (This is not hypothetical. It has happened in more than one scheme.) A balanced approach is needed, which seeks to minimise disputes on genuine claims while weeding out exaggeration and fraud. The optimal balance depends very much on the culture within which the scheme operates.

4.4 (C) Common Law

While Common Law can co-exist with statutory benefits, it creates a range of problems.

- It is a costly and labour-intensive way of providing benefits.
- It can substantially inhibit efforts at rehabilitation and return to work.
- The amounts awarded are substantially less predictable and can give rise to substantial cost escalation, long after the corresponding injuries have occurred.
- It creates a climate of confrontation and disputation, within which it is difficult to foster the cooperative attitude, between employee, employer and insurer, needed to get the best results out of the system of statutory benefits.
- This climate of confrontation and disputation also sours industrial relations.

- It provides benefits mainly in a lump sum form, which does not match the ongoing needs of many claimants. When a lump sum is provided to compensate for loss of income and ongoing costs, it is almost certain to be the wrong amount. Even if the conversion is correct on average across all claimants, almost all will either exhaust the lump sum and suffer hardship, or turn out to have had more than was needed.
- While structured settlements are now encouraged outside the context of workers compensation, they are not compulsory and do not fully solve the mismatching problem. They cannot properly allow for unexpected deterioration of a compensable condition, or increases in ongoing costs, in the way that statutory benefits can.
- The lure of a lump sum encourages claimants to maintain their symptoms, rather than seeking optimum rehabilitation. In some cases, this has a bad effect on the longer-term prognosis.
- Common law dispute resolution is slow. In some jurisdictions, the delays are vastly greater than for statutory benefits.
- It is based on the concept of fault, which does not sit comfortably with the needs-based approach of statutory benefits. In order to accommodate this needs-based ethos, it stretches the concept of fault so that it no longer has any meaning and in a way that is not compatible with the reforms underway elsewhere in Common Law.
- Depending on the rules for access to Common Law, it can create two classes of claimants.

The main benefits claimed for the Common Law approach are as follows.

- It provides closure for the injured worker.
- It provides finality for the employer and insurer.
- It is capable of adapting fully to the perceived circumstances of each individual claimant, at the time of settlement. We do not believe that this should be necessary, if there is a properly designed system of statutory benefits, nor that this extra flexibility outweighs the disadvantages that we have mentioned. It is necessary, however, that the statutory system be flexible enough to react to individual circumstances, as appropriate.
- It punishes the employer for negligence. Where genuine fault exists, action under occupational health and safety legislation is a more effective penalty, and is not softened by insurance. In many cases, however, there is little or no fault on the employer's part.

If access to Common Law is not allowed within the workers compensation system, considerable care will be needed to ensure that it does not reappear in other guises. In particular, the Public Liability and Products Liability avenues need to be blocked off.

Whether or not removal of Common Law would save or cost money depends on the alternative benefits and how they are managed. Both incurred costs and cash flows would, however, be far more predictable.

4.5 (D) Injury Management

It is clear that injury management can have an enormous impact on benefit costs. Early intervention is particularly important in achieving the best outcome, in terms of the long-term recovery of the injured worker.

4.6 (E) Dispute Resolution

We have no comment on this issue at this time.

4.7 (F) Premium Setting

There are a number of different aspects to this issue.

4.7.1 Funding Approach

There are two main approaches to the funding of workers compensation schemes:

- fully funded; and
- pay-as-you-go.

Under the Insurance Act, private sector insurers must be fully funded. Full funding is also generally accepted as being desirable for public sector insurance schemes. While some workers compensation schemes in Australia are less than fully funded from time to time, all acknowledge full funding as a goal. Under government accrual accounting standards, liabilities must be reported on a fully funded basis.

Under the Insurance Act, full funding is effectively defined by the prudential standard, GPS 210. This provides that provisions for claims and unexpired risk must be set by an approved actuary, on the basis of a 75% probability of adequacy, with allowance for discounting at sovereign debt rates.

The problem with pay-as-you-go (or partial funding, which lies between the two extremes) is that it involves inter-generational cross-subsidies. That is, the current generation of employers pays for the costs of past employment. This creates economic distortions. These are not too bad in a stable scheme, as the cash flow is not greatly different from the incurred cost. In a new scheme, however, or in a partially funded scheme which is allowed to slide further towards pay-as-you-go, costs are progressively deferred. This creates unreal expectations. If the experience improves, then the improvement will not be reflected in premiums until later.

A pay-as-you-go approach to individual employer premiums is totally unsustainable, because claim payments can continue for years after an employer goes out of business.

We believe that premiums should always initially be actuarially calculated on a fully-funded basis.

- In a public sector scheme, it may be necessary to charge more, if the scheme is under-funded, and may be acceptable to charge less for short periods, but only while the scheme is comfortably in surplus.
- Similarly a profit margin is needed in the private sector, and competitive market conditions may lead insurers to charge more or less than the actuarially indicated premium.

In either case, we strongly believe that the difference, between the actuarially appropriate premiums and the premiums actually charged, must be correctly assessed and made transparent to the financial stakeholders in the system.

4.7.2 Rating Structure

The expected cost of workers compensation varies substantially from employer to employer. The key elements are exposure (size, usually measured in terms of employee remuneration), nature of operation, safety performance, injury management and corporate culture.

Exposure is commonly measured in terms of remuneration. Given the prevalence of salary packaging, care is needed to ensure that the actual measure chosen is not open to manipulation and reasonably reflects the relative sizes of similar employers. In a limited number of cases, remuneration is not a good measure of exposure and alternatives, such as number of employees or a measure of work activity, such as number of rides for jockeys, are more appropriate.

Nature of operation is probably best reflected in the occupations undertaken by the various employees. In practice, however, this has generally proven unworkable, because of difficulty in allocating exposure between occupations. A more robust classification basis is industry, using ANZSIC or a similar classification scheme. This is typically applied on a location within employer basis, to accommodate diversified employers. Care is needed with the definition of location. One problem is the treatment of labour hire operations, where the industry mix is fluid, depending on client demands. Another issue is that, within a location, there are often groups of employees with very different risk profiles. A typical example of this is clerical workers in an office in a factory.

Because standard classifications, such as ANZSIC are not primarily intended as risk classification systems, some subdivision may be needed to reflect risk differences, particularly in the residual or “not elsewhere classified” classifications, or when different processes are used to produce similar products. Equally, it can be helpful to use a common rating for some groups of classifications where the activities are essentially the same. As discussed in section 4.14, we believe that a common risk classification system, compatible with ANZSIC, is needed.

Safety performance and other factors are discussed later, under experience rating and underwriting.

An important defining feature of any rating system is the balance between incentives and prediction. Actuarial theory aims to maximise the predictive power of the premium calculation. This seeks to find the best compromise, between responsiveness to real changes and stability in the face of random fluctuation. To this theoretical approach, we usually add features, intended to create or enhance incentives for workplace safety, injury treatment, and return to work, and to stabilise premium rates, so that rate changes are less disruptive. Striking the right balance between these three factors: responsiveness, incentives, and stability, is a difficult and often highly political matter.

4.7.3 Excesses and Penalties

Most current workers compensation systems in Australia require the employer to pay some part of the cost of claims directly. This might take the form of the first few days of income benefits or the first few hundred dollars of the total claim cost. This is called an excess and is an integral part of the premium rating equation and of the system of safety incentives.

Penalties for safety breaches are also part of the incentive system.

4.7.4 Overall Average Rate

While rates can, in principle, be derived for each classification, in isolation, it is helpful to consider the rating process in two parts: the overall average rate; and rate relativities for each classification. The overall average rate needs adjustment more frequently and can be used to manage funding levels.

The overall average rate required for a compensation scheme is sensitive to a variety of environmental factors and changes in those factors can occur quite quickly. By using the data for the whole scheme to set an overall rate, it is possible to identify and measure those changes much more quickly than would be possible at the individual classification level. Even so, the uncertainties and variations in the underlying data are such that there will be substantial uncertainty as to the overall rate required. This uncertainty is increased by any sub-division of the data. It is a matter of judgement, which can only be tested in the light of perhaps five to ten years of hindsight, how much of this variation should be reflected in changes to the rates charged from year to year.

The determination of the average rate is intimately linked to the actuarial valuation process, which operates on the basis of types of claim and largely ignores the risk classification, in order to work with aggregations of data which are large enough to support the analysis needed.

4.7.5 Rate Relativities

Because subdivided data is, in detail, more volatile, the rate relativities assigned to individual classifications need to be more stable than the average rate. While some of the largest classifications are nearly capable of standing on their own feet on the basis of a few years' data, many are so small that many years of claim data is needed to yield a reasonably reliable estimate of the proper relativity. A major branch of actuarial science, credibility theory, is devoted to this problem. In broad terms, this operates by using collateral information, such as the experience of similar classifications and experience from other sources, and by only adjusting relativities over time to the extent justified by the available data.

These adjustments, over time, require a balance to be struck between sensitivity, the ability to respond to actual changes, and stability, the ability to cut through random fluctuations. This is essentially a matter of judgement. Credibility theory provides a structure, so that this judgement is applied consistently across different classifications. The updated relativities are a weighted average of actual and expected experience, with greater weight given to actual experience for classifications with more claims.

Because relativities based only on the experience data are slow to respond to changes in all but the largest classifications, credibility theory also provides a basis for incorporating more subjective assessments of risk. This is appropriate, for example, where procedures or technology in an industry have changed. Care is needed, however to ensure that the claimed improvement in claim experience is plausibly related to the claimed cause. It is easy to apply *post hoc, propter hoc* reasoning to random good luck (ie concluding that there is a causal relationship simply because something happens after something else).

4.7.6 Experience Rating

Experience rating applies the concept of credibility to a further sub-division of the data, into employers or locations within each classification. Again, the balance between sensitivity and stability is a matter of judgement. As part of the aim, here, is to provide incentives for safe work practices, it may be appropriate to tip that balance towards sensitivity. Experience adjustments to premiums can also be used as a form of cost recovery. This is contrary to the principle of insurance.

To the extent that experience rating is used to provide incentives, the claim experience included in an experience rating formula should be reasonably immediate and controllable. There is little point in penalising an employer for essentially random variation, or for claims arising in the distant past. For this reason, experience rating formulae typically look only at recent claims and apply a moderate cap to the cost included in the formula for any one claim. Some formulae include claim numbers as well as or instead of claim costs.

In terms of prediction, experience rating is meaningful only for larger employers.

- The No Claim Discount system used in motor rating is a form of experience rating. This is based solely on the number of claims and works reasonably well when poor performance implies a claim probability of more than perhaps one in three. But many small employers, particularly in low-risk industries are well below this threshold.

- Where cost is included, substantially larger numbers are needed for statistically meaningful results. If the claim cap is set to truncate half of all claims, perhaps ten claims a year are needed, up to perhaps a hundred if the cap is set at around the average claim size.

Practical experience rating systems, however, are usually used more for their incentive effect than with a view to statistical soundness, and lower minimums and higher caps (than suggested by statistical theory) are usually adopted. An important criterion is perceived fairness.

Another possibility is to consider pooling the experience of small employers, in order to gain the advantages of experience rating. We understand that this has been done overseas and is now being tried in Victoria. The idea is that the group could work together on occupational health and safety and return-to-work, and could share resources, such as a safety manager. Groups could be based on existing industry, employer, district, service provider or union organisations. Care would be needed to avoid manipulation, however, such as if the group expels employers on the basis of one or a small number of claims.

4.7.7 Safety Assessment

For smaller employers, a better indicator of probable costs, relative to others in the same classification, is given by their attitude to safety. This can, to some extent, be assessed objectively, in terms of safety features, etc., though such assessment can be a labour-intensive activity. Such assessments are a feature of the New Zealand scheme and in several States.

4.7.8 Underwriting

Both experience rating and safety assessment are aspects of underwriting, as practiced by private sector insurers. This can also include a substantial element of subjective judgement. If exercised appropriately, judgement can add substantial value, in terms of reliably assessing the probable relative experience of particular employers. The problem is that this subjective judgement can, too easily, be subverted by competitive marketing considerations and become the means for unjustified discounting. If subjective judgement in the underwriting process is allowed, it must be subject to strict controls.

The most important control is over the overall average premium rate. If, as is usual in a competitive market, underwriters are expected to select better than average risks, and leave the worse risks to the competition, they have a strong stake in believing in their own success. As a result, every portfolio is believed to be better than average. This is clearly impossible, and the bias must be corrected.

This situation is exacerbated by the "winner's curse". If the true required rate is uncertain and competing underwriters' quotes vary around the true rate, the winning quote will always be too low. Again, there is a bias which must be corrected at the aggregate level, both for individual underwriters within an insurer and across all insurers in the market.

4.7.9 Cross-subsidisation

Because there is a very wide range of levels of risk, the premium rates required for some industry classifications can be very high. This is sometimes considered politically unacceptable, and cross-subsidisation imposed, to reduce the highest rates and charge more for lower-rated classifications. We believe that this practice is undesirable, as it masks the economic signals given by charging the actual expected cost. If subsidies are given, they should be provided explicitly, outside the premium rating system.

An even more worrying situation arises when the general level of required premiums is considered politically unacceptable and premiums at less than the fully funded level are knowingly imposed on the scheme. This is unsustainable and leads inevitably to significant unfunded liabilities and, if not corrected, political panic as the prospect of financial collapse draws nearer.

4.7.10 Actuarial Involvement

Most aspects of the premium setting process require actuarial input. We consider that actuarial certification should be required for workers compensation premium structures set in a competitive environment and that, as is current practice, supervisory authorities should seek actuarial advice on those aspects of the premium setting process that they control.

If there are competing insurers, the supervisory authority needs to monitor their rates to ensure that competition is not threatening the viability of the scheme, in aggregate. This needs to take into account the fact that there is considerable variation in the degree of risk, between individual employers and between the industry/employer mix of individual insurers.

4.8 (G) Self-insurance

Self-insurance provides a means by which large employers can effectively manage their own workers compensation exposure. Where management is intimately involved in all aspects of compensation, experience has shown that major savings can be made in terms of safety, as well as the cost of compensation.

The current arrangements for self-insurance are difficult for large employers with operations in more than one state. Not all states allow self-insurance. Where it is allowed, licensing requirements vary from state to state, and the employer must report separately in each.

In our view it would be desirable to have a regulatory framework for national self-insurance, which sets:

- eligibility criteria, such as minimum size or financial strength;

- an assessment process, covering occupational health and safety performance, standards and systems, capacity to manage claims, and financial capacity;
- prudential requirements, including reserving (on a similar basis to authorised general insurers, as set out in GPS210), reinsurance, and bank guarantee (or other protection mechanisms);
- ongoing compliance, audit and reporting requirements.

At a minimum, national self-insurance would be available to large national employers, in parallel with the existing arrangements. Alternatively, lower eligibility criteria could be set, with national self-insurance replacing the current range of state-based systems. This would clearly involve some compromise, since the incidence of self-insurance currently ranges from nil to about 40% (of remuneration).

Ideally there would be a uniform benefit structure for national self-insurers. However, unless uniform benefits can be achieved generally, which is the subject of item (b) of the issues set out in the terms of reference, this would be a step backwards. To introduce yet another benefit regime (or perhaps extend Comcare's reach), without greater uniformity of benefits across the country, also presents labour relations and competition problems.

Eligibility assessment could be undertaken by a new national body, but a new body is not necessary. A mutual recognition approach could be used, in which an employer that satisfies the agreed criteria and has demonstrated its ability to manage and finance self-insurance, would be automatically entitled to self-insure in each jurisdiction in which it operates. The principal assessment could be undertaken in the jurisdiction in which the employer has its head office, or perhaps its largest workforce, with the decision ratified by a self-insurance sub-committee of HWCSA.

This same body (the national body, or the "lead" jurisdiction, depending on the model adopted) would be primarily responsible for continuing oversight and audit. If required, the self-insurer could still report separately in each jurisdiction, but using a single reporting format. It is highly desirable to have uniform data and financial reporting requirements. The current National Data Set is not adequate for this purpose. Something along the lines suggested in section 4.14 is needed.

4.9 (H) Private Sector Insurance

There are four main models of benefit delivery possible: public sector; private sector; and mixed; and hybrid. There is a considerable division of opinion as to which of these is best.

In a mixed system, a government underwriter operates in competition with private insurance companies. This approach can be seen in many US states, and in Australia's Northern territory. A mixed system addresses many of the concerns about private sector service and incentives, while maintaining the benefits of a competitive market.

The hybrid system in most Australian government monopoly schemes is unique in the world. Financial responsibility and rate setting are retained by the government authority and claim management is contracted out to the private sector – largely insurers. This model has been adopted in NSW, Victoria and South Australia. Other functions which may be contracted out include investment, employer registration and levy collection.

Queensland and Comcare are pure public sector schemes. The other jurisdictions rely on private sector underwriting.

4.9.1 Pros and Cons

IAAust does not, in this submission, put forward a view either for or against private sector underwriting of compulsory insurance schemes. Many of the arguments put forward on either side are superficial and/or grounded in ideology or self-interest. We believe that, with suitable safeguards, either approach is viable.

In favour of full private sector insurance, it is often argued that:

- competition ensures better service and better value per premium dollar;
- bureaucracies are full of red tape;
- public systems are inefficient;
- the capital base of the insurance industry provides financial security;
- insurers offer equally good disability management;
- employers prefer to deal with an insurer;
- the private sector offers a choice of providers;
- governments cannot be trusted with the large provisions needed;
- staff turnover is lower, leading to greater efficiency.

Against, it is argued that:

- it is more appropriate for government to control compulsory insurance;
- insurers cannot implement cross-subsidies satisfactorily;
- insurers are insensitive to claimant needs;
- there are inefficiencies of scale in dividing claim management between insurers;
- insurers are likely to undercharge in pursuit of market share;
- insurers must charge more, in order to provide a return on capital;
- insurers are more likely to fail;
- a public sector scheme can ride through periods of less than full funding;
- insurers adopt an adversarial approach to claim management.

4.9.2 National Competition Policy

All Australian governments have agreed on the Guiding Legislative Principle of National Competition Policy:

> *"legislation should not restrict competition unless it can be demonstrated that:*
> *a. the benefits of the restriction to the community as a whole outweigh the costs; and*
> *b. the objectives of the legislation can only be achieved by restricting competition."*
>
> Competition Principles Agreement, clause 5(1)

Any analysis of private and public sector approaches workers compensation should start from this basic premise. Other things being equal, a competitive market approach to products and services is preferred. However, other things are not equal for workers compensation. There are special features which make it reasonable to consider a public monopoly approach over private underwriting.

The most important of these is that workers compensation insurance is compulsory. This, in itself, is an exception to National Competition Policy as it applies between employers. A further exception is needed to ensure that insurance is both available and affordable. This requires either a public sector insurer or some compulsion applied to private sector insurers.

There is a long history of reviews and analyses of various approaches to risk underwriting and claim servicing for workers compensation, both in Australia and abroad. None of these has clearly shown any particular model to be the best. Indeed, because the balance between the competing stakeholder interests is constantly shifting, the most effective approach seems to be a willingness to respond to these changes, rather than to find and stick with a "perfect" solution.

There is also a major political dimension to this question. While there are substantial advantages in a high degree of consistency throughout Australia, these are greatest in relation to the benefit structure, definitions and claim management practices. While a single national scheme, whether public or private sector based, does offer advantages, these may not be sufficient to over-ride the desire of each state, as determined by its representative government, to choose the underwriting system which it believes best balances the competing needs and demands of its stakeholders.

4.9.3 Cautions

Whatever system is adopted, there are risks that must be controlled. Public sector schemes have been replaced by private sector, and vice versa, sometimes alternately, after failing because of problems such as those noted below.

4.9.3.1 Private Sector

Unless proper controls are in place, private sector insurers have a demonstrated ability to indulge in self-destructive competition: under-reserving and under-pricing. Strong competition for large employer accounts and the influence of brokers add to this risk. This was the underlying cause of the NEM and Palmdale failures in the 1980s and the more recent failure of HIH.

Because of the political sensitivity of accident compensation premium rates, there is a strong tendency for politicians to try to talk premiums down. It is vital that premium setting should, to the greatest extent possible, be insulated from these pressures. While it is not a complete solution, actuarial certification of the rates charged by private sector insurers is an essential element of this protection, to ensure that premiums are set at a level intended to be enough to fully fund costs.

Even with a relatively good control framework, there is a strong danger of excessive price-cutting in the aftermath of any major restructuring of a compensation scheme, because the early results are often misleadingly good, and can appear even better in the early stages. When the true costs emerge, premiums can rise sharply and insurers can withdraw, leading to a lack of insurance capacity.

4.9.3.2 Public Sector

Public sector schemes are open to direct financial manipulation, as part of the political process which must constantly balance the demands of competing stakeholders. A public sector scheme needs to be protected from excessive political control, particularly over premium rates. Because of their taxing power, governments have more flexibility over the level of funding. Politicians have a demonstrated tendency, if they are given the opportunity, to impose inadequate premium rates. The inevitable result is either system failure, if the shortfall is not caught up, or a sharp increase in prices when it is.

Monopoly systems tend to become complacent. It is difficult to reproduce the climate of innovation and service improvement that competition engenders. Tight control over claim management is needed. Claim costs can increase, almost without limit, if this is not done. An attitude that all claims are genuine is a sure sign of trouble.

4.9.3.3 Mixed Underwriting

Under this model, in addition to the private sector risk of self-destructive competition, there is the possibility of political control of the rates charged by the government insurer, to force rates down.

4.9.3.4 Hybrid Management

An effective control and incentive system for claim managers is both vital and elusive. Controls are essential to ensure that insurers strike a proper balance between the needs of claimants and the need to control costs. Unless there are incentives that align insurer and scheme motivation, those controls are unlikely to be fully effective.

4.9.4 Disability Insurance

There is also a role for private sector insurers in filling the gaps around the edges of workers compensation. The self-employed, business principals, partnerships and some contractors fall outside the scope of workers compensation, but are at risk of workplace injury and illness. Disability insurance is available to fill this gap, but many are uninsured and would have to rely on Social Security. Consideration could be given to requiring a minimum level of disability insurance.

4.10 (I) Compliance Costs

We expect that greater consistency will reduce compliance costs. This is particularly true for national employers. A single national scheme, with a single set of benefits, pricing structure and approach to claim administration, and reporting to a national regulatory body, would minimise compliance costs. A single national scheme would also result in much less duplication of effort when, as is inevitable, schemes need to be adapted to meet changing circumstances.

4.11 (J & K) Cost Sharing

From an economic point of view, it is desirable that the expected costs of industrial injuries should be built into the employment costs of each employer to be passed on in the price of goods and services, and that random variation should be shared. This is largely the case now, but there are a number of departures from this principle.

- There are cross-subsidies. In some jurisdictions, there is a deliberate cross-subsidy from low-risk to high-risk industries. It is also believed that, as a generalisation, smaller employers are supported by larger, when both are charged the same rate.
- There is leakage into other compensation systems. These include Medicare and other government welfare, particularly for long-term injuries after benefits run out or are heavily cut back, and after a common law or redemption lump sum is exhausted.
- Genuinely injured workers usually end up bearing a part of the cost, again particularly for long-term injuries. Unfortunately, the alternative to this is to set benefits at a level that encourages malingering.

4.12 (L) Infrastructure

Apart from the fact that they already exist, there does not appear to be a strong reason to have separate bodies managing and providing workers compensation in each State and Territory. As a general rule, large insurers in Australia run a central head office and branch network. If this is the best way for insurers to manage their business then it would seem appropriate to manage a national workers' compensation scheme in a similar manner.

A national body would manage issues such as data collection, monitoring and comparison once for the whole of Australia. This requires legislation and benefits to be consistent across all States and Territories. Even if benefits are different, however, it would be helpful for matters such as treatment protocols and fees to be coordinated nationally.

There is some need for regional management, to ensure that local requirements are catered for and that the bureaucracy of a central body does not become overwhelming. It may be considered desirable to structure the regional management on a State/Territory basis although there may be other divisions that are more appropriate.

The costs relating to the infrastructure appear to be secondary to the issue of whether the current infrastructure can be removed and whether a different model is more appropriate. The costs of a central management and jurisdictional "branches" model would not be expected to be more than under the current arrangements.

The type of infrastructure depends on the legislation and benefits offered. For example, a controlling central body would not be appropriate in the present situation, where there are different legislation and benefits in each State and Territory.

4.13 (M) Prudential Regulation

In our July 2002 submission to the HIH Royal Commission, IAAust recommended that consideration be given to extending prudential regulation to all insurance and insurance-like schemes, including public sector insurers. (IAAust Submission to HIH Royal Commission section 3.4)

4.13.1 Public Sector

Private sector insurers are subject to prudential regulation by APRA, under the Insurance Act. We believe that similar principles would add a valuable discipline to the conduct of public sector insurers of accident compensation. Constitutionally, such regulation would be a responsibility of the various State and Territory governments.

In particular, we believe that premium and claim liabilities should be determined by an Approved Valuation Actuary in accordance with the principles set out in GPS 210, for all providers of workers compensation insurance. Since a public sector insurer is supported by the taxing power of the State, it may be appropriate to adopt a lower standard of adequacy than for private sector insurers.

For the same reason, the minimum capital requirements set out in GPS 110 are not applicable. It is possible for a public sector insurer to operate for some time with a funding ratio of less than 100%, but there should always be a rigorous and transparent actuarial calculation of scheme costs, so that the true economic cost is, in the long run, fully funded.

The other prudential standards are less directly applicable than GPS 210, but the issues that they address need to be considered in the public sector context.

4.13.2 Self-insurers

We have suggested, in 4.8 above, that self-insurers should also be subject to a similar prudential regulation. As for public sector insurer, claim liabilities should be determined in accordance with the principles set out in GPS 210. Again, it may be appropriate to adopt a lower standard of adequacy, based on the level of provision that a typical insurer would hold for the same liabilities, in the context of the insurer's broader pool of risks.

Full funding is mandatory, but capital adequacy is typically assured through bank guarantees or other mechanisms, and the approach of GPS 110 is not applicable.

As for public sector insurers, the other prudential standards are not directly applicable, but adequate reinsurance is needed and risk management lies at the heart of self-insurance.

4.14 (N) Data

A National Data Set for Compensation Based Statistics (NDS) was set up by the National Occupational Health and Safety Commission in 1987 and reviewed and updated in 1999. This is targeted at claims, with particular reference to analysis of occupational health and safety issues.

Because there are differences in benefit structure between the various state and territory schemes, the NDS is a sort of lowest common denominator, leaving out much of the (different) detail needed in the individual schemes. It is also constrained by the different administrative structures and computer systems in the various states and territories and, where competing insurers are used, the various insurers. If a common benefit structure and administrative rules are adopted, two benefits would accrue. It would be possible to use the administrative records directly, without the need to extract and translate, and the common data set would contain far more useful detail.

When the NDS was designed, it was constrained by the availability and cost of computer systems, particularly data transmission and storage. These are no longer practical constraints. Even a relatively modest desktop system is now able to store and analyse full details down to the individual transaction level. Such data is essential when scheme changes are under consideration, to give as good an understanding as possible of the likely effects.

The NDS does not incorporate exposure data, as such, but relies on other statistical collections to provide exposure data, using the ANZSIC classification. As discussed under Premium Setting in section 4.7.2, ANZSIC is not designed, and has some shortcomings, as a risk classification system.

We believe that it would be desirable to develop a common risk classification system, based on ANZSIC, to substitute this for ANZSIC in the NDS, and to collect exposure information on the same basis. To preserve comparability with data collected for other purposes, the ANZSIC code should be embedded in this new system, so that each code can be mapped unambiguously to ANZSIC.

Ideally, the exposure information would include the measure of exposure used for premium calculation, premiums charged, numbers of employees and hours worked. Because of data quality problems, however, these last two items may not be useable.

Please contact the IAAust's Chief Executive, Catherine Beall should you require further information or assistance on this matter – Tel: (02) 9239-6106 or mailto:catherine.beall@actuaries.asn.au

Appendix A Terms of Reference

9. *Drawing on the Industry Commission recommendations in Report No. 36 and No. 47, the Commission should assess possible models for establishing national frameworks for workers' compensation and OHS arrangements. In doing so, the Commission should identify and report on, but not be limited to the following:*

    (a) a consistent definition of employer, employee, workplace and work-related injury/illness and fatalities relevant to both workers' compensation and OHS that could be adopted consistently across Australia;

    (b) a consistent benefits structures that provides adequate levels of compensation, including income replacement and medical and related costs, for injured workers and their families;

    (c) the implications of retaining, limiting or removing access to common law damages for work-related injuries/illness and fatalities on the models identified;

    (d) the most appropriate workplace based injury management approaches and/or incentives to achieve early intervention, rehabilitation and return to work assistance to injured workers and to care for the long-term and permanently incapacitated, including the opportunities for re-employment or new employment of people with a compensable injury, and the incentives and disincentives for employers with regard to the employment of workers who have suffered a compensable injury;

    (e) effective mechanisms to manage and resolve disputes in workers' compensation matters that:

        (i) encourage the development of internal dispute resolution processes by employers;

        (ii) encourage the involvement of the employer, the employee, and insurers/schemes;

        (iii) encourage the use of alternative dispute resolution including mediation and conciliation; and

        (iv) retain an appropriate appellate structure for employers and employees.

    (f) the premium setting principles necessary to maintain fully funded schemes while delivering to employers equity, stability and simplicity. In doing so, the Commission is asked to identify models that provide incentives for employers to reduce the incidence of injury and improve safety in the workplace;

(g) a regulatory framework which would allow suitably qualified employers to obtain national self-insurance coverage that is recognised by all schemes;

(h) a regulatory framework which would allow licensed insurers to provide coverage under all schemes. In doing so, the Commission should identify and assess the likely impact on employers, employees and the wider community from the introduction of competition, including on the level of premiums;

(i) options to reduce the regulatory burden and compliance costs imposed on businesses of different sizes across Australia by the existing legislative structures for workers' compensation and OHS, within the context of the national objective to improve the workplace health and safety of workers. In doing so, the Commission should examine the interrelation between the workers' compensation and OHS legislative frameworks with other statutory regimes in place;

(j) the appropriate boundaries of responsibility for the cost of work-related injury/illness and fatalities between the employer, employees and the community. In doing so, the Commission is asked to report on the current level of employee coverage by the workers' compensation schemes and the current sharing of costs and to identify under any national framework model for workers' compensation, an appropriate sharing of costs for work-related injury/illness and fatalities;

(k) the costs to the community of complementing or supplementing the coverage of existing workers' compensation arrangements, such as income support and Medicare benefits that may be paid to injured persons; and

(l) the national and State and Territory infrastructure and relative costs necessary to support the models identified in establishing national frameworks for workers' compensation and OHS.