



SOCIETY OF ACTUARIES

Article from:

# International News

November 2007 – Issue No. 43

# Actuarial Involvement in Road Accident Fund Claims in South Africa

By Greg Whittaker

*Whilst not required by South African Law, courts in South Africa place a strong emphasis on actuarial evidence in damages claims. The vast majority of damages claims passing through South African Courts arise out of road accidents—in 2004 alone there were 12,709 deaths on South African roads. This article briefly describes the background of the Road Accident Fund and actuarial involvement in assessing the amount of damages arising from road accidents in South Africa.*

## The Road Accident Fund

The Road Accident Fund (RAF) is the product of a long history spanning more than 60 years, which commenced with the introduction of compulsory motor vehicle insurance through The Motor Vehicle Assurance Act of 1942. This statute provided for compulsory insurance to ensure victims could recover damages, which were caused unlawfully by motor vehicles. The main thrust of the initial legislation was to afford protection to persons not in or on a particular vehicle, i.e., pedestrians. During the 1960s it became apparent that certain insurance companies had insufficient income to cover claims with the result that several companies were liquidated. In 1965, the Motor Vehicle Accident Fund was established to act as re-insurer to insurance companies which undertook compulsory MVA insurance.

From 1942 to 1986 the legal basis and the funding of the MVA system essentially remained unchanged. The Motor Vehicle Accidents Act of 1986, however, changed the compulsory insurance system with its statutory annual premiums to one funded by a levy on fuel sold. The levy in 2007 is 41.5 South African cents per litre of octane petroleum. Petroleum prices are set by the South African Government and at present the price of one litre of octane petroleum inland is R 6.88. The average exchange rate in 2007 between the United States and South Africa has been around R 7.16 to \$1.

The 1986 Act also introduced the agency system in terms of which insurance companies could act as agents for the MVA Fund to handle and settle claims. The agency system



was undesirable and ineffective and was phased out from 1993 to 1997 and now all claims are attended to by the RAF. The Road Accident Fund Act of 1996 came into operation on May 1, 1997. This act established the present RAF whose objective is to pay compensation in accordance with applicable statutes for personal loss or damage wrongfully caused by the driving of motor vehicles.

The present MVA system indemnifies the driver or owner of a motor vehicle against liability incurred as the result of loss or damage wrongfully caused to another person in road accidents. The RAF only indemnifies the driver or owner to compensate for losses suffered due to bodily injuries sustained or the death of a person, and not also for liabilities which the driver or owner may incur for damage to property (e.g., damages to motor vehicles, personal affects, buildings, luggage or goods conveyed in a vehicle). Common law principles of wrongdoing are incorporated in the legislation. Thus during the assessment of claims the respective degrees of fault of the victim and the wrongdoer have to be determined. The victim's claim is reduced by his own degree of fault or blame for the accident. Claims fall under various types of damages as described below.



*Gregory Whittaker, ASA, MAAA, FCA, is an actuary at Algorithm Consultants and Actuaries in Johannesburg, South Africa. He can be reached at gwhittaker@iburst.co.za.*

continued on page 30

## Treatment of Claims

### Personal Injury Claims

Claims for personal injury under the RAF Act are separated into various types, viz.

- Past medical and hospital expenses
- Future medical expenses
- Past loss of earnings
- Future loss of earnings
- General damages.

Under personal injury claims, past medical and hospital expenses can be recovered from the RAF provided they can be proved by the claimant. Future medical expenses are normally settled via an undertaking by the RAF and also do not require actuarial computation. An undertaking is simply a contract between the RAF and the victim by which the RAF reimburses any reasonable expenses that the victim incurs as a result of the motor vehicle accident. The victim has to incur the cost first and then that cost is recovered from the RAF—a system that has come under criticism especially from seriously injured victims. General damages are damages paid for pain and suffering, permanent loss of amenities of life, disfigurement and emotional trauma. General damages are normally awarded by reference to past cases and do not require actuarial involvement.



Actuarial involvement in personal injury claims normally extend to computations in respect of past and future loss of earnings only. The future loss of earnings component however is typically the largest component of the total amount of damages in larger RAF claims.

### Death Claims

Claims in the event of a death under the RAF Act are separated into claims for:

- Funeral expenses,
- Past and future loss of support and
- Emotional shock.

Under death claims, reasonable and necessary funeral expenses can be recovered from the RAF. In addition, if a claimant is proven to have suffered psychological injury (for example the deceased's spouse may have been witness to the accident), then a claim for psychiatric counseling may succeed. Neither of these components requires actuarial input.

Actuarial involvement in death claims extend to computation in respect of past and future loss of support only.

### Actuarial Involvement

Damages for both past and future loss of earnings and past and future loss of support are settled by means of a lump sum capital payment. Legislation was drafted in 2006 to change this system to allow the RAF to settle damages by means of monthly instalments, but there have been numerous problems and challenges to the legislation to date. At this stage the exact operation is still murky and in some instances the RAF will continue to settle losses under the above-mentioned types of damages with lump sum payments.

### Past and Future Loss of Earnings Computations

The information required to perform the actuarial calculations will normally be supplied by the claimant's legal representative. In this regard, details of the claimant's date of birth, date of accident, earnings at the date of the accident and earnings since the date of the accident (if any) will normally be gathered by the attorney.

The projection of earnings had the accident not occurred and the projection of earnings now that the accident has occurred (if any) will be ascertained from various medical-legal reports such as those prepared by remuneration consultants or industrial psychologists. Alternatively the attorney will provide specific instructions in this regard.

Evidence in respect of earnings is normally provided by means of pay-slips, personal income tax returns and an employer questionnaire. There is no standard employer questionnaire and often the employer omits relevant details; hence, the actuary needs to take great care in dealing with such evidence.

Factors that are normally commented on by the relevant experts will include the likely retirement age of the claimant had the accident not occurred, the likely retirement age of the claimant post-accident (if the claimant is still employable) and any reduction in life expectancy as a result of the accident. The actuary may also conduct telephonic interviews with the various experts or with the employer to ascertain additional details such as membership in an employer pension fund and fringe benefits that may be included in the computations, such as bonuses.

Once all the relevant details have been ascertained, the past and future loss of earnings is computed. In particular, personal income tax is applied as the claimant is not liable for taxation on the award for past and future loss of income. No interest is added to past losses, but allowance is made for salary inflation from the date of the accident to the date of computation. Future losses are determined by allowing for salary inflation (and possibly merit or promotional increases depending on the advice of the remuneration consultant or industrial psychologist) and then discounting these losses at the assumed rate of investment return. The probability of survival from year to year is factored into the computation and is based on the claimant's post-accident life expectancy.

Essentially, the computation is the present value of an after tax earnings stream. The net discount rate (i.e., the difference between the rate of interest and the base rate of salary inflation) typically ranges from 2.5 percent to 2.8 percent per annum compound. There is no case law that stipulates the net discount rate to use, unlike countries such as the United Kingdom where a net discount rate of 2.5 percent per annum is prescribed by statute.

As mentioned earlier, the computation is based on the post-accident life expectancy of

the claimant. Claimants are normally subjected to rigorous medical tests and in recent times this has led to certain claimants being found to be HIV-positive. This presents a challenge in projecting future life expectancy within the broader controversies surrounding anti-retroviral treatment in South Africa.

#### **Past and Future Loss of Support Computations**

For loss of support computations, similar information is required for the deceased as that listed under the requirements for personal injury claims. In addition, dates of birth of all eligible claimants are required. Generally the spouse (or partner) and children of the deceased have valid claims. South African Law does not permit claims on behalf of siblings, grandparents or grandchildren. Parents may succeed with a claim provided they can prove financial dependence.

If the spouse of the deceased was not employed at the time of the death but subsequently takes up employment due to financial hardship, then the claim is computed on the basis that she is not working. That is, the spouse is under no duty to mitigate her losses due to the unlawful death. If the spouse was employed at the time of the accident then details of her earnings are also required in order to determine if there is a claim.

In such instances South African Law requires that the income (after tax) of the deceased and the income (after tax) of the spouse be pooled. The income is then apportioned (the courts have come to accept a formula allocating two shares of the income to an adult and one share to a child) between each family member to determine their share of the family income. Computations then proceed on the basis that breadwinners look after themselves first. If there is any residue between their own net income and their share of the combined family net income then that is allocated to the dependents.

The financial value of loss of support is assessed by taking into account the value of the chance of receiving the support for each dependent. This involves assessing the proba-

**“Actuaries have already made a significant contribution to the field in terms of past case law and will continue to contribute to this specialized area with their unique skills set.”**

continued on page 32

bility of survival of the deceased from the date of the accident and the probability of survival of the dependents from the date of computation (usually the present time) in future. Mortality in respect of children is usually ignored as this has a negligible effect on the overall amount. Proof must be provided to substantiate the age to which a child will be dependent—this is normally age 18 for a school leaver or age 21 or 22 for a university student. The particulars of the case have to be assessed and relevant evidence (such as university enrolment certificates) must be provided.

### Adjustments to Claims

In South African Law, any life insurance or pension fund monies paid to the dependents are not deductible from their claim for damages due to unlawful death, so that an element of double compensation is inherent in the system. However, claims are adjusted for the chances that the spouse may remarry and for the accelerated receipt of inheritance monies (excluding life insurance and pension fund monies.) Remarriage rates are based on culturally specific tables derived from marriage and divorce census data. Claims are also adjusted for general contingencies negotiated by the attorneys for items such as

the chances of unemployment and savings due to not incurring work travel expenses.

In personal injury matters, any employer disability pension serves to reduce the claim, whereas personal insurance policies held by the claimant (not related to the contract of employment) do not reduce the claim.

The RAF is the primary payer in the presence of a Workmen's Compensation claim. The Office of the Compensation Commissioner that handles Workmen's Compensation claims in South Africa recovers their disbursements from the RAF.

### Conclusion

Whilst the computation of damages claims applies fairly basic actuarial principles, the area presents many challenges and provides a broad grounding in other areas such as retirement funds, human resources, demography, insurance and social security. Actuaries have already made a significant contribution to the field in terms of past case law and will continue to contribute to this specialized area with their unique skills set. □



**Insurance Seminar on Economic Capital**

April 2-3, 2008  
InterContinental Grand Stanford  
Hong Kong

Co-sponsored by the Society of Actuaries and the Tillinghast business of Towers Perrin, this seminar is focused on providing in-depth expertise to companies on building, implementing and applying EC in their day-to-day business decisions, as well as the opportunity to network with your peers on this topic.

Mark your calendar and plan to attend. More information will be available soon at [www.soa.org](http://www.soa.org).

**Actuaries**  
Risk is Opportunity.™

The advertisement features a black and white photograph of three men in suits standing on a balcony or rooftop, looking out over a city skyline. The background shows a modern building with a glass facade and a clear sky.