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WORKERS' COMPENSATION IN THE REPUBLIC OF SOUTH AFRICA

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The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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I INTRODUCTION

The primary purpose of workers' compensation is to guarantee a reasonable remuneration or income stream for the employee temporarily or permanently exiting the work force for accidents or health-related reasons causally linked to the job (i.e., workplace injuries and occupational diseases). The objective of this report is to look into the socioeconomic efficacy of workers' compensation in the Republic of South Africa, that is, into both the equitability and efficiency aspects of South African compensation. To do so, the report first presents a background on South African workers' compensation, including its history, the claims process, the coverage, and the determination of contributions (Section 2); and, secondly, the current (regulated) South African compensation industry (Section 3). Section 4 subsequently introduces some preliminary theoretical and policy considerations in light of the findings of Sections 2 and 3. Section 5 concludes.

It is important to flag at the outset that the three companies composing the regulated South African workers' compensation industry – the Compensation Fund (a government organization), the Federated Employers Mutual (FEM) and Rand Mutual Assurance Company Limited (both private mutual companies) – are *non-profit* in nature. The efficiency of a non-profit is not calculated along traditional revenue lines: a non-profit does not have an objective function to maximize for efficiency, such as the profit one. What matters in the context of a non-profit is an objective that is defined by the non-profit itself. For instance, a non-profit may have the mission to prevent AIDS in the world, and one specific objective could be to reduce, over a five year period, registered AIDS cases by 1% per year in a specific country. The outcomes of this objective are then measured against the costs of the applied strategy and compared to analogous strategies. This comparison is subsequently used to subjectively assess the efficiency of a non-profit.¹

The preliminary findings of this report suggest that – when considered in light of the non-profit nature of the compensation industry in general – no innate organizational inefficiency is at play. Rather, the report finds that one possible concern resides with the institutional design – that is, with the basic rules of operation – not so much of the companies per se, but of the compensation process. As it currently stands, the compensation process may introduce, among others, coordination (e.g., Richardson 1972), information (e.g., Dahlman 1979), policing (e.g., Jensen and Meckling 1976), and transaction cost problems (Williamson, e.g., 2005). At the same time, this does not mean that there are no consequences tied to the general nature of compensation that may lead to some similar problems. However, these problems tied to the general nature of compensation shall only be alluded to in passing, for they are not the main interest of this report.

The report accordingly suggests that the contributions for coverage and the claims process are governed by *standards of behavioural performance* (David 1987) that may need some reform. There seems to be a case, in other words, where the public-good character of standardization (e.g., Kindleberger 1983; Lecraw 1984; Berg 1989a,b) is suboptimal. This sub-optimality could generate

¹ This is not to say that a non-profit is banned from earning profits. Strictly speaking, in fact, there are revenue requirements constraining nonprofits that, if not met, can lead to a budget deficit; though it is typical of a non-profit to have a yearly accounting surplus. But, as illustrated below, a deficit can be compensated at least as long as interest accrual on pecuniary reserves is equal to or greater than the deficit. The distinguishing mark of a non-profit is then that it should not distribute its profits to its constituents (e.g., its members, managers, trustees): a non-profit pays the individuals that it hires, but its residual earnings must be directed to financing its objective. Consequently, a non-profit does not have individuals with both a control and a residual claim, namely, it does not have any owners in any formal sense. For a quick economics-of-organization introduction to this literature see, for example, Hansmann (1996, pp. 11-23 and pp. 227-286).

significant deadweight losses, i.e., reductions in social efficiency tied to lack of equilibrium between demand and supply of compensation. To attempt to obviate these possible losses, it is necessary to have a consistent infrastructure of processes and procedures through which the compensation companies communicate and coordinate with each other as well as with their contributors and beneficiaries (cf. Barzel 2004). A consistent infrastructure of processes and procedures is necessary for social (i.e., equitability) as well as economic (i.e., efficiency) reasons, the costs and benefits of which do not always match in every point in time.²

In light of its findings, at this juncture the report does not favour the formation of a new government agency entirely supplanting the current industry structure (or parts of it). Indeed, now the preferred conduct is to favour the reform, development and implementation of standards of behavioural performance governing and disciplining the due process for contributions for coverage, which could also influence the incentive structure to contribute. The motivation for such a stance is simple. When there is already an industry in place where there are already some standards of reference, as is the case of worker compensation in the Republic of South Africa, the government should first carefully evaluate such standards of reference. If the standards are found to be not fully implemented or socially suboptimal then there is room for an attempt to refine the standards or even develop new ones from scratch. Only subsequently, if the reform phase of existing standards should fail, it would be then appropriate to begin to consider a reform of industry structure (or parts of it) by fiat.³

2 BACKGROUND OF COMPENSATION IN THE REPUBLIC OF SOUTH AFRICA

2.1 ORIGIN

The Kruger government had considered passing an Employers' Liability Act but before this could be finalised the Anglo-Boer War occurred (Katz 1994).⁴ After the War, the first Workmen's Compensation Act (WCA) was passed in 1914. Prior to the passing of the Act, employees injured at work had to institute a common law suit against the employer for negligence. Compensation would only be paid if fault could be laid directly with the employer. However, the difficulty of proving negligence, the common law defences, and the high cost of litigation rendered the worker's common law right minimal, to such an extent that the British Parliament abandoned reform of the common law in favour of the German idea of workers' compensation. While the 1914 WCA only recognised injuries, amendments to the Act in 1917 extended coverage to provide for specified industrial diseases.⁵ In its early form, the WCA was ineffective in providing adequate compensation because employers were not compelled to insure their workers against the risk of workplace injuries. Contemporaneously, employers that did not have insurance could face insolvency from a serious incident; while the employee

² That social and economic costs and benefits may not always be in sync has been formally recognized at least since Okun (1975).

³ Compare Besen and Johnson (1986).

⁴ This subsection draws extensively on Budlender (1984).

⁵ In the mining industry a parallel development took place providing compensation for phthisis (later silicosis). Compensation for occupational diseases in mines followed its own parallel course through several Acts, starting with the Miner's Phthisis Act 19 of 1912. For a detailed history of the development during this period consult Katz (1994).

affected could face poverty. As a result, by 1930, workers, industry and government recognised the need for compulsory insurance. In any event, risk aversion and market forces had resulted in the birth of Workers' Compensation insurance companies and prudent employers had been purchasing insurance. The requirement to purchase workers' compensation insurance was the codification of good practice.

Yet, as early as 1894, given that the mining industry faced a high accident rate, the Rand Mutual Assurance Company was founded. By 1914, half the mines belonged to this self-insurance scheme, and by 1931 (when a new Worker Compensation bill came into effect) all mining companies belonged to Rand Mutual. The member companies were exempted under the 1931 bill. The 1934 WCA made insurance compulsory through private companies rather than a state fund favoured by workers and trade unions. While the 1934 WCA had increased benefits, organised labour was unhappy with the scheme as the premiums were too high: there "were ... 57 different companies registered but most of these were organised in such a tight 'ring' as the 'tariff companies' that competition was minimal" (Budlender 1984, p. 31). In response to the situation, the Federated Employers Mutual Assurance Company (FEM) started in 1936, providing cover for employees in the building industry.

In 1941, a new coalition government was formed, which included the Labour Party. The political interest of industry favoured concessions to labour to gain support for the war effort. As a result, the 1941 WCA was passed in which all accidents were to be reported to a new figure appointed by the Minister of Labour to run the Fund: the Workmen's Compensation Commissioner (who later became the Compensation Commissioner). There were to be no more private compensation agreements between employers and workers. Compensation would be paid from a state fund to which all employers would contribute on the basis of companies' wage budgets. The 1941 Act aimed to institute a state scheme as well as increase benefits. While there have been subsequent amendments to the 1941 Act, these amendments did not make significant changes to the fundamental principles of the Act. Appendix I presents a chronology of the amendments to the 1941 Act.

2.2 THE COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT (COIDA)

Despite the numerous amendments to the 1941 Workmen's Compensation Act, there remained a number of shortcomings. In 1993, the Compensation for Occupation Injuries and Diseases Act (COIDA) replaced the former WCA to address these shortcomings. The WCA provided for a pay ceiling, effectively not covering employees of higher income groups. The 1993 Act, on the other hand, is more extensive: it covers all employees for compensation, not just those classified as "workmen". Because employees (professionals, office workers, etc.) who do not do manual labour are less likely to claim for compensation, including these with the "workmen" would increase the pool of funds available to pay compensation to those workers in higher risk categories. Such inclusion would, in turn, lead to the cross-subsidisation of lesser-paid workers by higher-paid ones, violating a fundamental principle of private insurance: risk rating.⁶ In addition, the COIDA also changed from only covering widows in the WCA to cover the surviving spouse irrespective of gender. Furthermore, new developments in the

⁶ It should be noted that compensation is generally premised on social policy considerations rather than pure commercial ones. For this reason contributions paid to the carrier by employers do not fully reflect, strictly speaking, the risk profile of each specific trade or economic sector. Some countries (e.g., Denmark) make employers pay the same contribution regardless of their trade. This is one way to obviate the adverse-selection innate into various types of coverage, such as the insurance and the compensation. Adverse selection refers to the information problem between, e.g., the insured and the insurer, that manifests with the propensity for coverage to be purchased merely by those individuals who are more likely to need it. This practice tends to raise costs and decrease benefits.

labour market, especially the casualisation of work through labour brokers (later leading to temporary employment services), meant that a significant number of workers was no longer covered under the WCA as workers were no longer directly employed by the companies they ultimately worked for. Under the COIDA, all types of work relationships are covered, including workers on temporary contracts. In the case of contract work, the principal contractor is under an obligation to ensure that the subcontractor registers the employee; if this requirement is not respected, the principal contractor is liable for workplace accidents or diseases.

As concerns occupational diseases, employees under the WCA were compensated by calculating the last salary received while in employment. This meant that if a worker was diagnosed with a disease years after employment, he or she could receive insufficient compensation depending on the inflation rate. In contrast, under the COIDA (Section 67(2)), if the employee is no longer in employment at the time of the commencement of the disease, the employee's calculated earnings will be based on the earnings that the employee would most likely be earning if still working. Therefore, if the employee is diagnosed with a work-related illness many years after employment, then compensation will be in line with current remuneration – unlike the compensation provided under the WCA. Moreover, take note that the list of recognised diseases under the COIDA has been extended compared to the earlier Acts. Finally, under the COIDA, the employer is obliged to compensate employees for the first three months of Temporary Total Disability (or TTD, defined more precisely below), which can then be reclaimed from the Fund. In essence, the COIDA provides a system of “no-fault compensation” for injured employees or for those who contract diseases during the course of employment.⁷

The entire structure of the compensation scheme in South Africa is defined by the COIDA. Thus, who contributes to the fund, the amount of the contribution, who is covered by the fund, the type of injuries and diseases covered by the fund as well as the extent of compensation are stipulated by the COIDA. Further, the COIDA clearly defines the procedures for compensations as well as the agents and their responsibilities. Any recommended changes to the compensation scheme in South Africa would require an amendment of the COIDA. While the COIDA is supposed to cover all employees in South Africa for work-related accidents and occupational diseases, it currently excludes domestic, independent and self-employed workers from compensation (Taylor 2002).

Interestingly, however, the informally employed are also generally covered under the COIDA. Still, informal sector employers tend to not register with the Compensation Fund, and their employees are unaware that they are covered. This entails that there are seldom claims from the informal sector. The Compensation Fund argues that the rationale for the exclusion of domestic workers is logistical: it causes prohibitive administration costs. Domestic workers, for example, are difficult to administer and monitor as there is scope for a single employee to have multiple employers. In the case of an injury, the domestic worker is required to follow the civil route of claiming damages from the employer if private settlement is not considered. The self-employed are excluded from the Act as there is no formal contract of service. Military and police as well as correctional services are generally included, except in the case of war.

Furthermore, the Taylor Report (2002) indicated that “administrative backlogs” had resulted in inefficient compensation thereby prejudicing workers who had an occupational injury or disease. In fact, until recently, the Compensation Fund only processed claims where the employer supplied relevant

⁷ “No-fault compensation” is a legal rule asserting that an aggrieved party is entitled to compensation without concurrent necessity to prove that any other party was at fault for the accident.

information. As a result, employer delays or non-compliance in reporting accidents or supplying information resulted in very significant delays in the processing of claims.

Since then, test-case “class interest” litigation has resulted in the Compensation Fund agreeing to alter its administrative procedures to process claims where the employee reports the accident and the employer fails to comply with its administrative obligations under the COIDA. In terms of the settlement, the Fund established a separate Department to process the 198,000 cases that had been delayed by employer non-compliance. Some of these claims had been pending for as long as 12 years. Although the Compensation Fund is bound by an agreement that was made through an order of court to process claims, the dispute does highlight that the statutory procedures, which are essentially those in the 1941 Act, are outdated.

More recently, the High Court has held that the Fund acted illegally in refusing to pay compensation for Temporary Total Disablement (defined more formally in a moment) to employees who were not undergoing active medical treatment. The Court ordered the Fund to re-examine claims adjudicated over the last three years (this will require approximately 150,000 claims to be re-examined). However, the carriers report that the processing of claims has improved and the average payment turnaround time for the government fund is now 90 days. However, if all documentation is complete and correct, this can fall to 10 days. The carriers attribute the improvement in turnaround times in the last 5 years to improved technology, which has assisted them to improve efficiency in terms of turnaround times.

2.3 MINING DISEASES: THE OCCUPATIONAL DISEASES IN MINES AND WORKS ACT 73 (ODMWA)

Given the nature of the mining industry, certain diseases are compensated under the Occupational Diseases in Mines and Works Act 73 of 1973 (ODMWA). The diseases covered under the ODMWA are those that have been determined to have been contracted while performing “risk work” in mines or related “works”⁸. These diseases include pneumoconiosis, tuberculosis, permanent obstruction of airways and progressive systemic sclerosis. When mining diseases are not covered under the ODMWA, the COIDA applies and Rand Mutual is liable for all diseases in respect of its members.

There are currently serious problems in the ODMWA fund, suggesting that the ODMWA presents inequitable compensation arrangements if compared to the COIDA. The problems with the ODMWA include inferior management and poor service delivery (only a small fraction of disabled miners who are certified disabled appear to get successfully compensated). Another issue is that of delays of many years before compensation is paid out (there have even been cases of death occurring before compensation has been granted). Further, the ODMWA has implemented almost no revisions (not even inflationary adjustments) for the compensation figures. This generates scope for inadequate and inequitable compensation – especially if one considers that the benefits under the COIDA are reviewed and adjusted annually. While the ODMWA provides only for the management of permanent, irreversible, incurable conditions, the COIDA covers both curable and incurable conditions. (Appendix 2 reports the workplace diseases covered by the COIDA.) In terms of the compensation payments, the ODMWA only offers lump sum benefits, while the COIDA provides a monthly pension for permanent disablement, assessed at over 30% in relation to the employee’s earnings.

⁸ A report of the Nieuwenhuizen Commission – the Commission of Inquiry into the Compensation for Occupational Diseases in the Republic of South Africa by the Department of Mineral and Energy Affairs in 1981 – found that there is no reason for the separation of mineral-related occupational diseases from other occupation diseases (Nieuwenhuizen 1981).

Since 1999, the government has been considering merging the ODMWA and the COIDA into a new Act in order to attempt to improve monitoring, reduce accidents, and close gaps within social insurance.⁹ In fact, there is currently a problem of claims filed with incorrect government departments, double dipping (viz., that in some cases double compensation is paid), and a lack of equity of compensation being paid. Part of the new proposed structure is to provide integrated inspection services with labour, the COIDA and Unemployment Insurance Fund (UIF). Also, the funds for compensation within the department of Health (established under the ODMWA) and the Compensation Fund will be merged. The success of this plan, clearly, is contingent upon the relevant political will (Interview with Compensation Fund, June 2007).

2.4 EMPLOYER REGISTRATION WITH COMPENSATION FUND, AND THE NOTION OF “CARRIER”

All employers are obliged to register with a “carrier”, which is either the Compensation Commissioner of the Compensation Fund or an approved designated mutual. Employers are then required to provide their respective carrier with the particulars of their businesses. The onus is on the employer to ensure that these details remain up to date. Failure to register for Compensation constitutes an offence.

The employer has the responsibility to maintain records of the earnings of employees for a period of at least four years. A health and safety representative elected in terms of the Occupational Health and Safety Act (No 85 of 1993) has the right to inspect, and, if necessary, notify the Commissioner of any documentation that the employer should retain in terms of the COIDA.

2.5 CLAIMS PROCESS

If an employee is involved in, or is subject to, a work-related accident or is diagnosed with a work-related disease, the employee or their dependents will be entitled to compensation under the COIDA. An *accident* is defined by the COIDA as a personal injury, an illness or the death of the employee during the course of his or her employment. An *occupational disease* is a disease that has arisen out of and in the course of employment. The date of commencement of the occupational disease is the date of the first diagnosis of the disease by a medical practitioner.

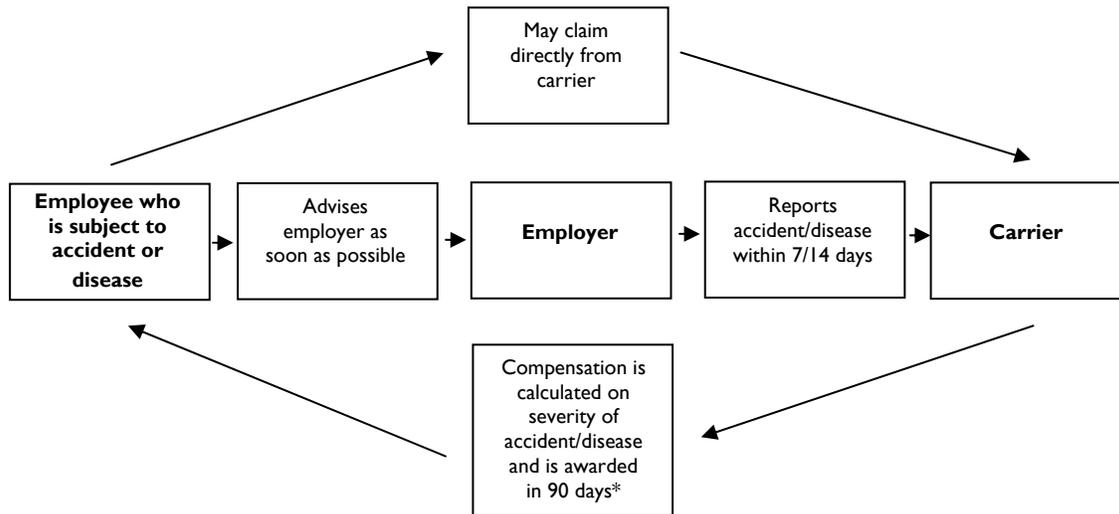
There will be no periodic payments for temporary disablement (whether partial or full) that last for less than three days. It is only if the accident is due to the “serious and wilful” misconduct of the employee that compensation is not payable under the Act, except if the accident results in “serious disablement” or the employee dies and leaves a financial dependent; an exception can be made in that the carrier may pay the medical expenses (COIDA, Section 22).

The general claims process is defined in Chapter V of the COIDA. Figure 1 shows the claims process once the employee has incurred an accident or has been diagnosed with a work-related disease. The employee has to inform the employer of the accident or the disease if he or she is physically able to do so. The employer then is obliged to inform the Commissioner or the designated carrier of the employee’s situation within 7 days in the case of an accident or 14 days in the case of an occupational

⁹ The implications of two Acts are currently under consideration in litigation. The case has been heard and the judgment is awaited. However, indications are that the matter will in all probability end up in the Constitutional Court again.

disease. These prescriptions apply from the time that the employer is made aware of the condition of the employee. The Commissioner will then engage in an inquiry of the lodged claim. Once the severity of the accident or of the disease has been established, the Commissioner or the designated carrier will compensate the worker for lost income or any other expenses incurred through the accident or disease.

Figure 1: Claim Process under the COIDA – A Schema



* Compensation Fund turnaround – Mutual Associations have faster turnaround times.

Source: COIDA and Interviews.

If the employer fails to inform the Commissioner or the designated carrier, this does not bar the employee from the right to compensation. The right to compensation applies even for cases where the employee fails to inform the employer, but the employer is aware of the accident/disease through other sources. An employer that does not comply with the notification process is guilty of an offence and may be liable to pay a fine up to the full amount of the compensation due to the employee. Carriers find it problematic to administer this part of the claims process, as the 7/14 day notification period of the employer refers to the time from when the employer was made aware of the injury/disease and not from the time of the accident or the disease diagnosis.

The injured employee is required by the carrier, when deemed necessary, to provide information and documentation. Notably, if claims have not been lodged with the Commissioner or the designated carrier within 12 months after the accident or the diagnosis of the disease, the worker's right to compensation will lapse.

2.6 COVERAGE

Compensation can take the form of payment for loss of earnings (tax free), travelling expenses, medical expenses, lump-sum payments or pensions. Appendix 3 reports the calculations for compensation.

The following types of compensation are paid by the Fund or the designated carriers:

- A. Temporary Total Disablement (TTD) (loss of income/salary);

- B. Permanent Disablement (PD);
- C. Medical Costs;
- D. Death benefits.

Consider each seriatim.

A. Temporary Total Disablement (TTD). Compensation with regards to TTD or incapacitation is only payable if the employee is booked off duty for more than three days. It is calculated based on the employee's salary at the time of the accident and includes all normal allowances, such as a thirteenth salary cheque. Compensation is paid at the rate of 75% of the employee's earnings up to a maximum prescribed by the Minister of Labour. For the first three months of TTD, the employer is obliged to pay the employee the compensation. These first three months of compensation are subsequently refunded to the employer by the carrier. After the first three months, compensation is paid directly to the employee by the appropriate carrier. If the TTD exceeds 24 months, it may be treated as a permanent disablement by the Compensation Commissioner.

B. Permanent Disablement (PD). If the injury or disease results in a permanent anatomical defect, loss of anatomical function or disfigurement, which is tantamount to disablement for employment, the employee is entitled to compensation with respect to the permanent disablement. As shown in Schedule 2 of the COIDA reported in Appendix 4, PD can include total or partial loss of a limb, impairment of movement of a joint, loss of vision or hearing, restricted lung function, or loss of an organ. The Schedule is based on the American Medical Association (AMA) guidelines. Any other PD not prescribed in Schedule 2 is assessed by the Commissioner on condition that it is consistent with the Schedule. The compensation for PD is paid either in a lump sum or a monthly pension depending on the degree of disablement.

However, before proceeding, let us note that there are two potential problems with using Schedule 2 of the COIDA to compensate for permanent disability. Firstly, the schedule is not based on the latest AMA guidelines and, secondly, the basis for calculating PD does not relate to the impact of the injury on the employee's earning capacity.

PD assessed at 1- 30% is paid in the form of a lump sum and is calculated at 15 times an employee's monthly earnings at the time of the accident, subject to a maximum and a minimum of such earnings as prescribed by the COIDA. The lump sum payment in the event of PD at less than 30% is calculated pro rata to the lump sum for 30%. If the permanent disablement is assessed at more than 30%, the employee will receive a monthly pension for life. PD for 31-100% is calculated at 75% of the employee's monthly earnings subject to a prescribed maximum and minimum of such earnings. Lesser degrees of disablement (in excess of 30%) will attract pensions proportionate to the degree of disability (with 75% as the maximum baseline).

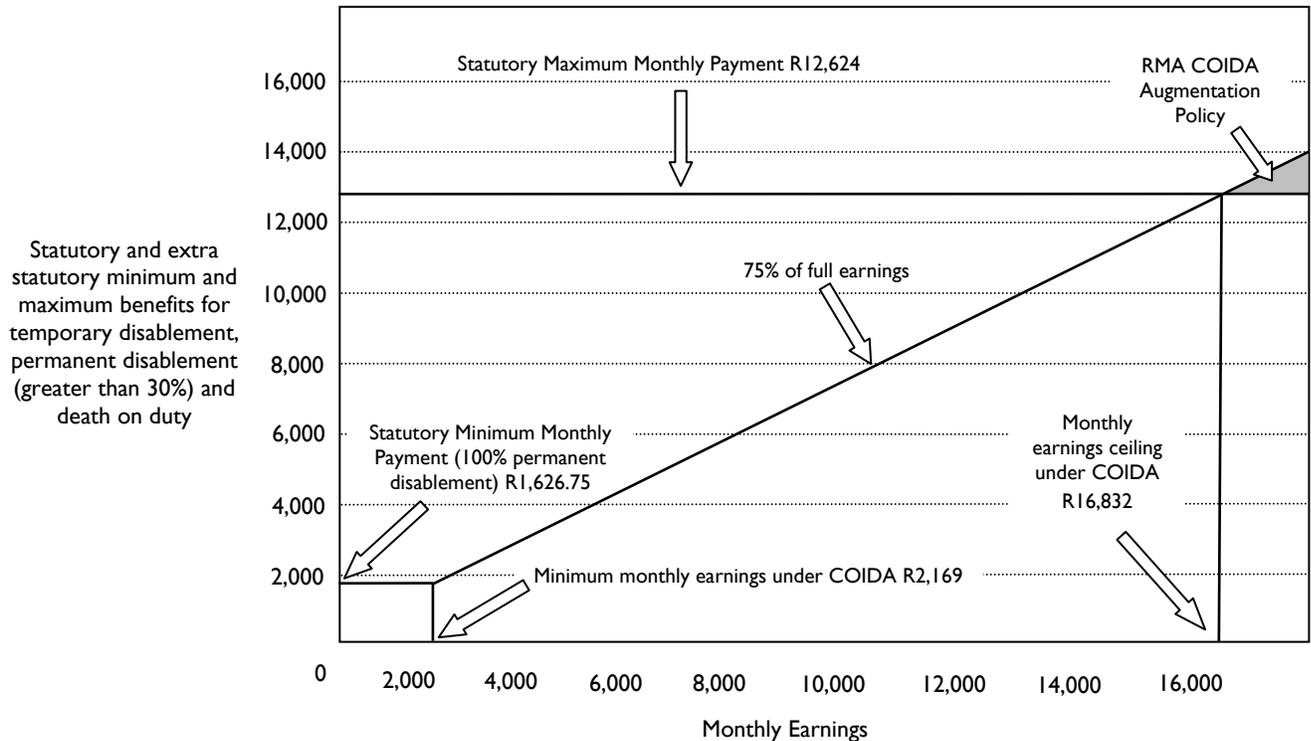
The compensation owed is calculated as follows:

$$\text{Compensation} = (\text{Earnings} * 75\%) * \text{Level of Disability (\% According to Schedule 2)}. \quad [1]$$

If the employee is under the age of 26 or working as an apprentice or is involved in a learnership at the time of the accident, the PD will be calculated on future probable earnings based on the earnings of a recently qualified person or of "a person in the same occupation, trade, or profession with five years more experience than the employee" (COIDA, Section 51-2).

A “constant attendance allowance” is also payable in cases where the employee’s disablement is of such a nature that he or she is dependant on another person in order to sustain the basic functions of life.

Figure 2: Minimum and Maximum Compensation Benefits



Source: Rand Mutual (2006, pp. 11, 24) Guide to the Compensation for Occupational Injuries and Diseases Act, No 130 of 1993, as Amended (updated with calculations by Compensation Commissioner in April 2007).

The minimum and maximum benefits under the COIDA for disability greater than 30% are shown in Figure 2. Beyond the stipulated maximum of 75% under the COIDA, Rand Mutual, the designated carrier for the mining industry, provides additional compensation through its augmentation policy (shown in the grey shaded area). The employee will receive 75% of his or her earnings should the disability be 100% (and pro rata on disability from 31% to 99%). The augmentation policy was introduced as a result of collective bargaining between the Chamber of Mines and the mining unions. Furthermore, an additional benefit provided by Rand Mutual (though not under the COIDA) is the rehabilitation of mineworkers who experience serious injuries. In any case, under the augmentation policy Rand Mutual Assurance (RMA) will pay up to a maximum of R50 million per any one claim and per employee.

C. Medical Cost. The Commissioner is liable for the payment of the reasonable medical costs incurred by the employee as a result of an occupational injury/disease for a maximum period of 24 months from the date of injury or diagnosis of disease. However, this time period can be extended if it can be shown that the medical treatment reduces the disability. The employee has the right to choose a medical service provider for consultation. The fees payable by the carrier are determined annually once the Compensation Fund has consulted with representative health care provider associations for the medical industry. The fees prescribed are the only fees payable and a health care provider is not

permitted to charge a different fee.¹⁰ The Fund will also bear the reasonable costs for the supply, repair and replacement of artificial assistive devices necessitated by an accident or a disease as well as chronic medication.

D. **Death Benefits.** Compensation is payable to the financial dependants should an employee die as a result of an occupational accident/disease. (See Table 1.) The surviving spouse will receive a lump sum payment of twice the monthly pension the deceased employee would have received for 100% PD. Thereafter, the dependant will further receive a monthly pension of 40% of what an employee would have received for 100% PD (i.e., 40% of 75% of final earning). The pension is paid throughout the dependant’s life; it continues even if the surviving spouse remarries. If there is more than one customary wife, the pension payable is shared equally among the wives. A civil marriage supersedes a customary one in terms of the spouse’s eligibility for compensation.

The remaining 60% is spread among surviving children, whereby each child will not get more than 20% of the pension. Each child – up to a maximum of three under the age of 18 – will receive 20% of what the employee would have received for 100% PD. Three children will thus receive 60%. If the deceased employee had more than three dependant children, they all share equally in the pension in respect of 60%. The total monthly pension paid to the surviving spouse and children cannot be more than the pension the deceased employee would have received for 100% PD. The pension for a child ceases when he/she reaches the age of 18, dies or marries before reaching 18 years of age. However, it may be extended until the child completes secondary or tertiary education or if the child is mentally and/or physically disabled. If there are more than three children, implying that each child receives less than 20%, then as soon as the oldest child is no longer eligible the remaining children will share the 60% up to the 20% maximum per child.

Table 1: Death Benefits to Widow/s and Child/ren

Composition of family unit	Percentage addition to standard pension for widow and children
Widow/s	40% of standard pension or a portion thereof (in the case of more than one widow)
1st child	20% of standard pension
2nd child	20% of standard pension
3rd child	20% of standard pension
More than 3 children	Share 60% equally
Total not to exceed 100% of employee’s compensation	

Source: Rand Mutual (2006) Guide to COIDA.

All pensions are increased annually, depending on the availability of funds. Increases are published in the Government Gazette. The carrier pays for the burial expenses of the late employee up to a prescribed maximum.

The no-fault system of compensation allows a much broader range of employees to receive compensation and to do so without having to sue the employer. Employees are not compensated for non-pecuniary losses such as pain and suffering, but their claims are limited purely to financial losses.

¹⁰ The medical fees agreed to by the Compensation Fund and the associations of the medical industry are higher than the National Health Reference Pricing List (NHRPL) because of the length of time that has historically taken for the Compensation Fund to pay the medical service providers.

Compensation is calculated according to several schedules in the COIDA. If the employee considers the compensation inadequate and can prove negligence on the part of his or her employer or what used to be called vice-employers, then the employee is entitled to increased compensation. In this case, an application for increased compensation has to be lodged with the Commissioner within 24 months of the date of the accident/diagnosis of the disease. If the Director General is satisfied that the accident/disease is due to negligence (i.e., meets the statutory requirements (COIDA, Section 56)), then additional compensation may be awarded as deemed equitable. The additional compensation, together with any other compensation awarded, may not exceed the pecuniary loss which the worker has suffered as a result of the injury or disease. Employer negligence can also include negligence of other employees.

Note that according to the COIDA “employer negligence” can also include a defect in the condition of the premises, place of employment, material or machinery in the business concerned where the employer was aware of the defect, but still failed to correct it. In this case, the onus is on the employee to prove that the employer was 100% responsible for the workplace accident or disease. As a result, very few cases of negligence are accepted.

If the accident or disease is the fault of a third party, and the employee successfully sues the third party, then the Compensation Fund can also reclaim any compensation paid to the injured employee from the third party. A third party includes any person other than the employer (including its senior management) who might have been responsible for the accident – it may include other contractors working on the same site, too. And in cases where employees are supplied to a client (user enterprise) through a Temporary Employment Service (TES), the user enterprise is in fact a third party in relation to the employee as the TES is considered to be the employer.

When employees migrate from the urban to the rural setting, they are given an exit medical exam, and then referred to hospitals or health centres (established by Department of Health) in their area so that they can have checkups every two years.¹¹

3 INDUSTRY STRUCTURE

3.1 BASICS

The Compensation Fund is a public organization under the Department of Labour that is responsible for compensation. (See also Appendix 5.) According to the Public Finance Management Act (1999), the executive authority lies with the Minister of Labour, while the accounting one with the Director-General. The Compensation Commissioner, who reports to the Director-General, administers the Fund. The Fund licenses out its function vis-à-vis certain sectors to two private mutual companies – Federated Employers Mutual (FEM) and Rand Mutual. The two mutual companies are responsible for the construction and mining industries, respectively. The licenses to FEM and Rand Mutual are renewed on an annual basis based on a performance review by the Commissioner. Notably, only a non-profit company can obtain and maintain such a license.

¹¹ In this connection, note that Section 42 of COIDA examinations are not for employees emigrating abroad; Section 42 examinations are requested to assist the Commissioner to reach a decision regarding permanent disablement, etc. The medical assistance of the emigrating employee is not affected when leaving the Republic of South Africa.

Though FEM and Rand Mutual have limited settlement powers to process claims, they are still required to report to the Minister of Labour about their activities relating to the COIDA responsibilities. Moreover, FEM and Rand Mutual are monitored by the Compensation Fund to ensure compliance to the Act (and to their licensing conditions) as well as to ensure consistency in the application of the Act. In the event that the Minister of Labour believes that a mutual has failed to comply with the conditions imposed by the Commissioner, then the latter may suspend or withdraw the license. Hitherto, however, such scenario has never manifested.

In addition to the FEM and Rand Mutual, there are certain employers who are exempted from paying annual assessments to the Compensation Fund, for they are individually liable to pay compensation to their employees for occupational injury/disease. These employers include the National Government, the Provincial Government and the Greater Metropolitan Councils, of which there are 6. Benefits paid by these employers are paid in accordance to the COIDA. Accidents and diseases are reported to the Commissioner in the traditional prescribed manner, and the Commissioner then is required to determine the extent of the permanent disablement suffered by the employee as well as the employer's liability. Subsequently, the Commissioner will issue an award for payment by National Treasury on behalf of the exempted employer. The exempted employers are charged an administration fee per claim reported. See Table 2.

Table 2: Carriers Responsible for Compensation (2006) – A Summary

Carrier	Public/Private	Year Started	Sector	Number of Members
Compensation Fund*	Public	1941 (WCA)	All	332,536
FEM	Private	1936	Construction	3,327
Rand Mutual	Private	1894	Mining	290

* According to the COIDA (Chapter IX, Section 840), the following are exempt from the Compensation Fund: National and Provincial Government, local authorities (who have exemption certificates), and municipalities.

Source: Interviews, Annual Reports and Compensation Fund.

All other employers are required by law to register with the Compensation Fund. Any employer in the mining or construction sector with a satisfactory track record regarding the payment of the compensation tariff can register with their designated mutual association. See Table 3.

However, if an employee files a claim and their employer is not registered, the claim will still be processed through the Compensation Fund. The Compensation Fund will then follow up with the unregistered employer to impose a fine (the employer is liable for the entire cost of the compensation if they have not registered with the fund). In that respect, the Compensation Fund fulfils the function of a fall-back option for all employees even in the case that their employers have not contributed to the Compensation Fund.

Table 3: Industry Breakdown of Registered Members (1998)

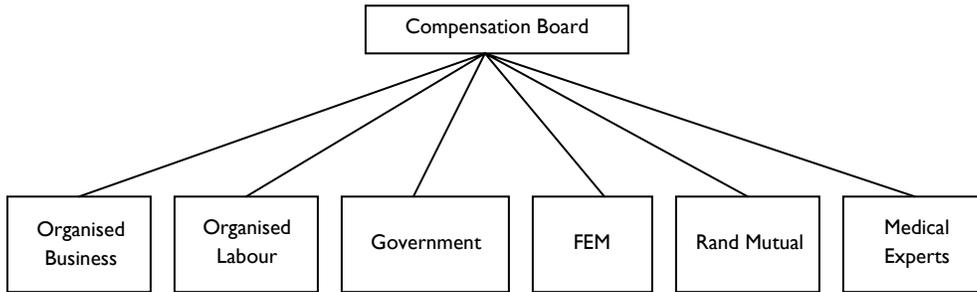
Class	Industry	Average per Employer	Number of Employers	Number of Employees	
				Total	%
1	Agriculture and Forestry	13.5	45 343	614 124	11.6
3	Fishing	19.1	245	4 688	0.1
4	Mining	78.5	1 148	90 079	1.7
5	Building and Construction	9.5	31 394	298 438	5.6
6	Food, Drink and Tobacco	29.7	9 184	272 757	5.2
7	Textiles	51.4	3 648	187 385	3.5
8	Wood	18.5	7 679	141 982	2.7
9	Printing and Paper	37.5	2 089	78 379	1.5
10	Chemical	49.5	3 951	195 436	3.7
11	Leather	49.0	756	37 060	0.7
12	Glass, Bricks and Tiles	23.8	2 976	70 724	1.3
13	Iron and Steel	18.6	31 223	579 963	11.0
14	Diamonds, Asbestos, Bitumen	9.5	2 105	20 080	0.4
15	Trade and Commerce	14.0	54 650	767 579	14.5
16	Banking, Finance, Insurance	43.2	6 362	274 627	5.2
17	Transport	33.5	11 267	377 120	7.1
18	Local Authorities	251.7	738	185 741	3.5
19	Personal Services, Hotels	12.3	38 148	467 210	8.8
20	Entertainment and Sport	14.3	2 645	37 755	0.7
21	Medical Services	19.8	9 495	188 126	3.6
22	Professional Services, N.O.S.	15.8	10 659	168 422	3.2
23	Educational Services	26.1	5 991	156 133	3.0
24	Charitable, Religious, Political and Trade Organizations	14.7	5 465	80 102	1.5
TOTAL ACROSS INDUSTRY		18.4	287 161	5 293 910	100

Source: Compensation Fund (2007).

3.2 ADMINISTRATION

The Compensation Board is a statutory body of the Compensation Fund that advises the Labour Minister on issues such as policy matters, annual benefit increases, appointing assessors and amendments to the COIDA. The board includes representatives from organised business, organised labour, government, FEM, Rand Mutual and medical experts. All representatives are expected to consult with their constituencies on the inputs given to the Fund. See Figure 3. In addition, various sub-committees have been established to advise the Board on matters such as improved benefits, occupational diseases, disabilities and investments.

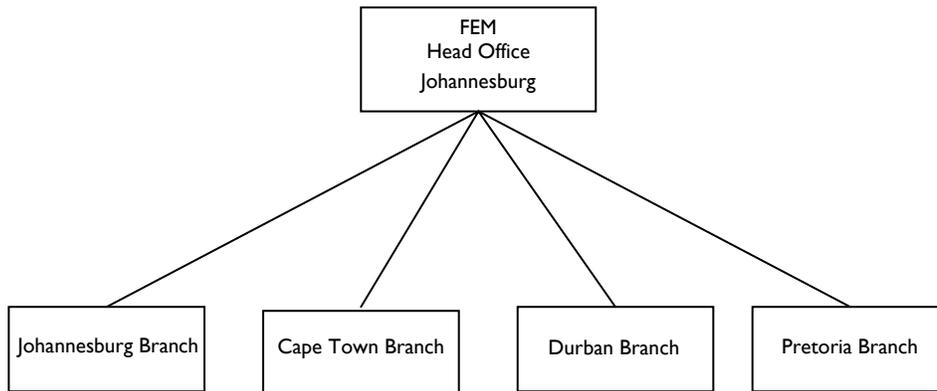
Figure 3: Compensation Board



Source: Compensation Fund Annual Report 2006.

In 1936, the Federated Employers Mutual Assurance Company (FEMA) was founded in response to the passing of the Workmen’s Compensation Act in 1934. The Act of 1934 obliged all industrial employers to insure against accident or injury of their employees. Insurance at the time was underwritten by conventional insurance companies which made it unaffordable to builders. The result was the formation of FEMA – which later became the FEM – which offered affordable coverage for the building industry. An integral part of the organisation was the idea that a non-state company could provide better service than an “impersonal state fund” (<http://www.fema.co.za/femahistory.htm>). Refer to Figure 4.

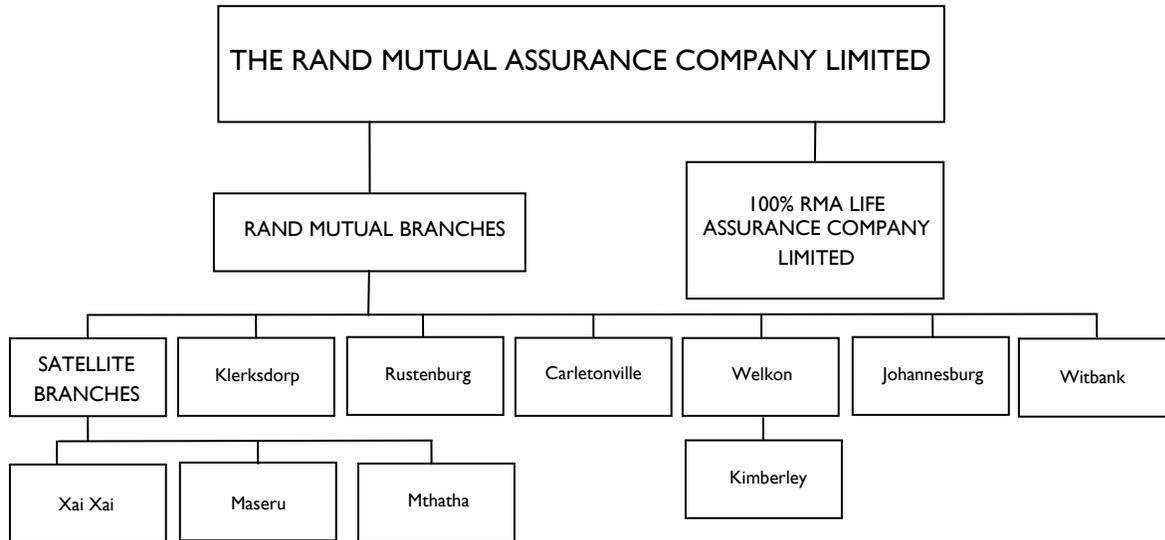
Figure 4: Structure of FEM



Source: FEM Annual Report 2005.

The Rand Mutual Assurance Company Limited was founded by three mining companies on the Witwatersrand in 1894. It was a non-profit insurance company (whose shareholders are its members) established to administer compensation to employees injured during the course of their employment in the mining industry. Then, in 1941, the new Workmen’s Compensation Act was promulgated, and Rand Mutual was licensed by the state to continue to underwrite workers compensation in the mining industry. With the implementation of the COIDA in 1993, Rand Mutual retained its license to underwrite workers’ compensation in the mining industry. According to Rand Mutual it currently insures 94% of the mining industry and is on a drive to get the remaining 6% who are currently with the Compensation Fund. These employers require clearance of their bad debts before Rand Mutual is allowed to underwrite them. Figure 5 depicts the structure of Rand Mutual.

Figure 5: Structure of Rand Mutual



Source: Rand Mutual.

3.3 FINANCES OF CARRIERS

According to Section 16 of the COIDA, the Compensation Fund and the other carriers are responsible for payment of compensation, medical expenses and other pecuniary benefits to employees (or on their behalf) where no other person is liable for the payment. Furthermore, the Compensation Fund reimburses the National Revenue Fund (NRF) for the remuneration of the Compensation Commissioner while paying the Director General for his services and/or expenditures incurred. The Compensation Fund is also responsible for paying the costs of medical examinations of employees, and should witnesses be required, their expenses also.

Table 4: Revenue and Expenditure by Carrier

Carrier	Employers	2005 (R'000)		
		Income from Premiums	Claims Incurred	Reserves/ Investment
Compensation Fund	332,536	2,567,200	1,391,546	6,888,713
FEM	3,327	173,767	213,395	892,096
Rand Mutual	290	255,187	587,649	792,633

Source: Compiled by the authors from Annual Reports of All the Carriers and Compensation Fund Interview.

The difference between the collected revenues and the expenditure are kept as surplus revenues (Reserves/Investment in Table 4) for unforeseen liabilities and for the smoothing of added wage (tariff)

cost to the employers. The interest on the existing reserves is used to offset the deficit between revenues and claim costs. (More on this in Section 3.3.3.)

3.3.1 Revenues

All carriers generate revenue through the assessment of their members. These assessments are based on the total wage bill of the members and on the tariff which the employers have to pay. Thus, the revenue collected depends on:

$$\text{Assessment} = \frac{\text{Earning (Wage Bill)} * \text{Tariff}}{100} \quad [2]$$

All employers are required to provide their respective carriers with their employee data, and must ensure that these data are updated. The tariff is later calculated for the subclass of an entire industry. Because the various industries have different risk ratios with respect to the frequency and severity of accidents, each industry subclass is evaluated, and then given its separate tariff. The tariffs are calculated and evaluated annually. The motivation behind these tariffs is to ensure that the carriers have sufficient funds to compensate workers for accidents and diseases while at the same time maintaining solvency. (Refer to Appendix 6 for the tariffs of the various subclasses.)

The Compensation Fund calculates the tariffs not based on actual risk ratios (frequency and severity of accidents and diseases), but based on an aggregated claims-cost data of previous years as well as on the expected revenue from their members' assessments according to relationship [2]. The Compensation Fund subsequently calculates the subclasses' tariffs in such a way that the expected revenue covers the expected costs of the subclass, i.e., that the subclass breaks even. (See Appendix 7.) The tariff therefore increases in cases of a continuous build up of a deficit by the subclass, and reduces in cases of a continuous build up of a surplus by the subclass.

While FEM uses the same tariffs as the Compensation Fund, Rand Mutual calculates its own tariff rates based on actuaries risk evaluations. These tariffs are generally lower than the Compensation Fund tariffs. This seems to be possible for Rand Mutual because it has significantly fewer members which make the handling of their members' information easier.

3.3.2 Reductions and Loading

The Compensation Fund can adjust tariffs to reward or penalise employers. This is a measure used to create incentives for employers to effectively reduce accidents, and to align the cost of the assessment with the actual claims cost of the employers. See Table 5.

Generally, the subclass tariffs apply to all employers of that specific subclass. However, if the three year average of an individual employer's claims cost is 62½% or less of the employer's three year average assessment, then the individual employer can apply for a reduction of the tariff below the tariff of the subclass. Thus, the individual employer has built up a surplus over the last 3 years. Table 6 reports some figures pertaining to administration costs and average claims of carriers.

Reduction of the tariff will only be considered for employers that have been in business for at least three years, have a good track record with the Compensation Fund in terms of regular assessment payments,

and that pay more than the minimum assessment. The reduction is approved by the Supervisor and the Assistant Manager of the Tariff Section of the Compensation Fund. The size of the tariff reduction depends on the claims history of the individual employer as well as on the surplus build-up of the employer's assessment over its claims costs. (See Appendix 8.)

**Table 5:
Initial Loading of the Tariff Based on the Average Assessment of the Employer**

Amount of average assessment (3 years)	Initial percentage loading of tariff
Less than R400	30%
From R400 to R3 999	20%
From R4 000 to R9 999	15%
R 10 000 and higher	10%

On the other hand, when the three year average of an individual employer's claims cost is higher than the employer's three year average assessment, then the Compensation Fund can consider a loading of that employer's tariff. In such a case, the individual employer has accrued a deficit with respect to the Compensation Fund.

The purpose of loading is not to recover past cost, but to create an incentive for the individual employer to reduce accidents and prevent the deficit from becoming unsustainable. Therefore, the percentage increase of the tariff should not increase the financial burden of the employer to such an extent that the employer cannot financially operate. Rather, the loading of the tariff should simply create an incentive to reduce accidents and increase workplace safety. In this regard, the loading should still make it financially viable for the employer to implement accident prevention measures. Should the employer continue to build up a deficit despite the initial loading, then the Compensation Fund can increase the loading (see Appendix 9).

Table 6: Administration Costs and Average Claims of Carriers in 2005

Administration Costs as Percentage of Premiums	Administration Costs as Percentage of Claims	Average Claim
Compensation Fund	16%	29%
FEM	15%	12%
Rand Mutual	28%	12%

Source: Compiled by the authors from the Annual Reports (2005) of all Carriers.

An individual employer will not be loaded with a higher tariff if the higher claim's cost is traceable to a single accident or multiple accidents resulting from a single incident (group accident). Furthermore, should it prove financially impossible for the individual employer to pay the higher tariff, then the burden of the individual employer's higher claim cost will be spread across all employers of the subclass by

increasing the tariff of the entire subclass. The Compensation Fund and the FEM use the same tariffs as calculated by the Compensation Fund. Rand Mutual uses its own tariffs established by actuaries. Rand Mutual's tariffs are lower than the Compensation Fund's tariffs because only employers in the mining industry that are in good standing are permitted under the COIDA to register with Rand Mutual. Furthermore, because the members of Rand Mutual – i.e., the mining companies themselves – run Rand Mutual, there is an incentive to keep injury and disease claims to a minimum. This incentive and the ability of the constituent companies of Rand Mutual to monitor the small number of members enable the constituents to keep the number of claims relatively low. In turn, low claims allow Rand Mutual to offer its constituents a lower tariff.

3.3.3 Reserves

All the carriers have large reserves due to the need for “lifetime liability.” However, as per the COIDA, the carriers do increase or decrease premiums based on health and safety records and give employers rebates (Various Interviews with Compensation Fund, FEM and Rand Mutual, various days in June, August and September 2007).

As mentioned, the Compensation Fund also holds responsibility for a Reserve Fund, which can consist of both cash and investments (return to Table 4). The Director-General is responsible for determining the size of the Reserve Fund. The Reserve Fund is deemed necessary to provide for unforeseen demands on the Compensation Fund and to stabilize assessment tariffs. The Compensation Commissioner is authorised to make payments out of the reserve (COIDA, Section 19).

The Compensation Fund admits that the revenue generated through their members' assessments was less than their claims cost. Still, the deficit was covered through the interest earnings of the Compensation Fund's reserves.

The imbalance between revenue and claims can be traced to two problems. First, there is an enforcement problem: it difficult to monitor the collection of money. The tariffs are calculated on the potential revenue that the Compensation Fund should be able to collect if all members paid. But the data that are used to calculate the expected revenue from the subclasses by the tariff section of the Compensation Fund are not aligned with the data set of the financial section of the Compensation Fund that monitors the collection of revenue. Thus, non-payments as well as incorrect payments cannot be picked up easily. Second, the Compensation Fund is liable for compensation of all workers even where their employers have not contributed to the Compensation Fund.

Furthermore, each Mutual Associations has to pay securities to the Compensation Fund in order to cover their liabilities. Securities deposited will be used solely in the event of a mutual's default. Should the security not be required, the Minister of Labour may return a portion of it back to the mutual. Securities are calculated using the life expectancy of the pensioner (using statistics from 1991) and the capitalised value of expected funds needed to ensure security of that pension. One criticism has been the use of 1991 life expectancies instead of more recent data. But according to the Compensation Fund, the life expectancy of their members is greater than that of the general South African population. In the near future the Compensation Fund expects to have sufficient data on their pensioners to calculate life expectancies for their population sample.

4 THE IMPORTANCE OF STANDARDS

4.1 CONTEXT, MOTIVATION, AND TWO GENERAL OBSERVATIONS

What emerges from the analysis is that the general social concerns at the root of workers' compensation – most notably income security – are also well reflected in the specific history, inspiring and guiding principles, and reforms of the compensation industry of the Republic of South Africa. Nonetheless, there seem to be some inefficiencies present in the industry. These inefficiencies seem to be economic, in the sense that there may be room to lower the costs of providing the benefits of compensation, and hence to render the industry more competitive and equitable.

To this end, this Section argues that standardization is one promising policy prescription to improve the socioeconomic efficacy of the South African compensation industry. The argument proceeds in five subsections. After defining and classifying types of standards in Subsection 4.2, Subsection 4.3 presents some general economic benefits of standardization. Subsection 4.4 then identifies 12 specific areas that refer either to an absence of a standard or to existing but inconsistent standards across the South African compensation industry.¹² These areas have an obvious impact on coordination, information, policing, and transaction costs. Subsection 4.5 relates the insights of the previous three subsections to more tangible benefits to the worker. Finally, Subsection 4.6 relates the theoretical and policy considerations presented in the four preceding subsections to some germane government and industry concerns. At the same time, it is also important to qualify that the argument presented in this section is a first approximation one and that, as such, warrants further investigation.

Before moving on, it seems useful to do two things. The first is to quickly assert the motivation for focusing on standards rather than on more familiar inefficiencies. The second is to present two rather general observations about the nature of compensation that concern moral hazard and policing, which also warrant further investigation.

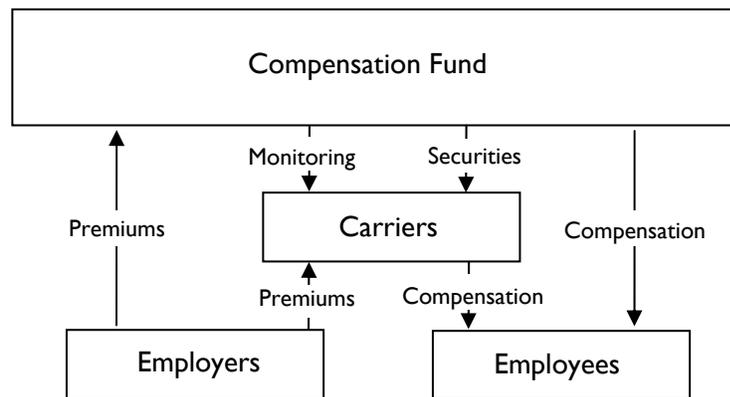
Besides from the insights presented in Sections 2 and 3 above, the proposed approach to primarily focus on standard rather than on another economic efficiency is motivated by a stylized fact too. The three compensation carriers – the Compensation Fund, FEM, and Rand Mutual – have been alive and well for many years. Consequently, there is little room to doubt their performance along traditional revenue lines. Had they not been performing along traditional revenue lines, the market would have performed the filtering function for which it is famous: the Compensation Fund, FEM, and Rand Mutual would have been winnowed out by now, *notwithstanding* their non-profit nature and *notwithstanding* the regulated nature of their industry.¹³

¹² Preventative standards – i.e., steps taken to prevent accidents – do not fall under the purview of workers' compensation. Preventative standards fall under the Department of Labour (through the Occupational Health Act under the Safety Act) as well as under the Department of Mines (through the Mines and Works Act). As a result, this report does not consider preventative standards. If later on preventative standards would enter the picture as well, policy effort from the compensation industry should be coordinated with both the Department of Labour and the Department of Mines.

¹³ On the filtering function of the market, see, for instance, the classic statement by Alchian (1950), and compare Winter (1964). At the same time, keeping in mind the public nature of the Compensation Fund, it is also true that filtering mechanisms differ between the public and the private economy: see Forte (1982).

The first general observation concerns moral hazard, a problem that emerges from incentive issues. In the case of compensation, minimum compensation for disability in some cases can exceed future worker projected income. For instance, according to Figure 2, 2006/7 statutory minimum monthly payment under the COIDA is R1,626.75; while the minimum wage in some sectors is below this figure – e.g., in the same financial year of reference in forestry it is R836 per month, and in construction it is R1,440. This defines scope for perverse incentives, especially in the face of mass unemployment, which increases the uncertainty of continuous future employment. Hence, compensation unintentionally can establish the wrong standards of behavioural performance (more on which presently). There is an incentive to substitute an insecure income stream (the salary) for a secure income stream (the compensation). An extreme but conceivable manifestation of such moral hazard is an incentive to intentionally injure oneself. Consider now Figure 6, which schematically summarizes the current structure of the compensation industry and its pecuniary and organizational interrelations. Notice how, if compared to traditional insurance, instead of the beneficiary contributing to the carrier, only the employer contributes to the carrier, with the employee remaining the sole beneficiary. As such, moral hazard can also emerge because a carrier may not necessarily be able to distinguish an accident originating from carelessness from one originating from a random event: if I know that I am covered for on the job accidents but do not bear the burden of the cost for the coverage, then the amount of care taken to avoid a particular accident may diminish. The upshot is that the presence of perverse incentives is not in accord with the need to set a sufficiently high minimum compensation threshold to ensure income security.

Figure 6: Compensation and its Pecuniary and Organizational Interrelations



The second general observation regards the policing of registration compliance. If one compares the number of registered companies to the number of companies of the Business Register, UIF and South African Revenue Service (SARS) it is apparent that not all employers fulfil their obligation, that is, register with their respective carrier.¹⁴ This lack of registration can be an indication of a selection problem in registration. This selection problem entails that the employers that register are more likely to be in compliance with occupational health and safety guidelines, while those employers that do not register are less likely to be so. To be sure, it is easier to police larger employers due to their visibility rather than the smaller employers that can more easily evade policing. Notice, significantly, that this type of selection problem differs from the adverse one in that it may cause employers that have a higher risk profile to *not* necessarily register for compensation. Indeed, the cost-benefit reasoning on behalf of these employers that do not register seems to pertain to probability of being detected and not to

¹⁴ Admittedly, there is always going to be some discrepancy in these figures because some of the companies in the Business Register and SARS include companies composed of just one individual (Close Corporations).

probability tied to risk-category. Without wanting to push the point too far in the present report, we may call this type of selection problem *detection-selection* as opposed to *adverse-selection*. Be that as it may, take note that even though employers do not register, their employees are still eligible for benefits from compensation.

4.2 DEFINITION AND TAXONOMY

In February 1904, downtown Baltimore faced the emergency of dealing with a very serious fire. The emergency was so severe that, within a short amount of time, fire engines arrived from neighbouring Washington, D.C., and additional units came from other, more distant cities, like Philadelphia and New York, by train. However, most of the help from outside Baltimore turned out to be impotent. The reason for this is that the screw threads on Baltimore’s fire hydrants did not match those of the hoses of the fire fighters from out of town (Hemenway 1975, p. 3). When standards are absent there can be significant social and economic losses, as this example dramatically illustrates.

Standards are those shared models, rules and templates that aid purposive behaviour of various sorts, e.g., social, economic, personal, technical, etc. A standard, in different terms, can be an institution, a governance structure, a culture, a machine, a rule of conduct, a technical specification, a technology, etc. that facilitates action. In short, the purpose of a standard is to decrease variability.

David (1987) proposes a taxonomy of standards that distinguishes between technical design standards and standards of behavioural performance. Both standards can be of three forms: standards for reference definition; standards for minimal acceptable attributes; and standards for interface compatibility. See Table 7.

Table 7: A Taxonomy of Standards

	Standards of technical design	Standards of behavioural performance
Standards for reference, definition	Currencies Weights and measures Chemical properties Grades, dimensions of materials and products	Professional licensing Accreditation of institutions Precedents in law
Standards for minimum permissible attributes	Safety features Product quality	Legal codes Job qualifications Certification of competence
Standards for interface compatibility	Physical design of interfaces Codes Screw threads	Contractual forms Diplomatic protocols Vernacular languages Standards of commercial conduct (honesty)

Source: David (1987).

Interface standards may be considered the most complex of standards because they are usually more exacting than standards of quality or reference. For a fire hose to fit a fire hydrant the design of the screw threads must not only fall into the right category or be of sufficiently high quality, but also conform to a precise specification. In this sense, standards also deal with technological specifications (e.g., computers and software, telephone and communication networks, high-definition television and multimedia recording devices). For present purposes, however, the substantive point is that standards

of contract, convention, governance structure, law, procedure, etc., namely those of behavioural performance, are at least as important as those of technical design.

4.3 ECONOMIC BENEFITS OF STANDARDIZATION

It is possible to identify four major economic benefits of standards: (1) economies of scale; (2) lower transaction costs; (3) network effects; and (4) stimulation of innovation. The report concentrates on benefits (1) and (2), because (3) and (4) are peripheral to its concerns.¹⁵

Standardization reduces variety and helps equilibrate supply and demand. Consider this 1910 episode of standardization. The Society for Automotive Engineers established standards for automobile parts that selected the types of steel tubing in use from 1600 to 210 and the types of lock-washers from 800 to 16 (Epstein 1928, pp. 41-43). Thanks to this standardization, a great variety of independent car parts suppliers could capitalize on longer production runs to decrease costs. The suppliers who benefited the most were the small ones who didn't have enough internal demand for parts. This is but one illustration representing an economy of scale benefit from standardization.

Standards aid coordination because they align expectations. For instance, driving on the same side of the road, be it left or right, is a standard that decreases the transaction costs inherent in trying to understand the behaviour of other drivers; moreover, it reduces a variety of economic, human and social costs tied to lack of coordination. Relatedly, standards reduce policing (and measurement) costs as well. Adopting only the metric system obviously facilitates trading, but also creates a disincentive for cheating. In general, then, standards also decrease policing and measuring costs by easing the identification of product and service attributes. This is the case, e.g., of standards that specify the meanings of terms used in product labels.

Economies-of-scale and transaction-costs benefits of standards are not mutually exclusive. Standards aid action because they help predict the scale and scope of a market. And the ability to more easily calculate the expected return on purposive economic action facilitates an extension in – and a refinement of – the division of labour as well as promotes a favourable investment climate (Carstensen 2000). So, for example, if legal procedures and conventions are standardized for an industry of a particular country, then the various actors (companies, entrepreneurs, workers, etc.) operating in that country will economize on resources by not having to reinvent the wheel every time that they work with different members belonging to the same industry of that country.

Standardization is crucial for economic growth (Langlois 2001). In the case of the United States, for instance, the historical importance of standardization for growth is well-documented. Since Americans ultimately accepted undifferentiated products, US firms more easily engaged in mass production vis-à-vis European ones (Rosenberg 1972). (As Henry Ford famously said about the Ford Model T: “The customer can have any colour he wants so long as it's black.”) More generally, legal standardization allows firms to deal with a larger, more homogenous market, allowing lower costs and larger scale production.

Economies-of-scale benefits of standardization are usually only experienced indirectly by individuals by means of lower prices. The benefits of reduced transaction costs, on the other hand, are usually more

¹⁵ For benefits (1) and (2) we draw especially on Kindleberger (1983), Lecraw (1984), Berg (1989a,b), David (1997), and Barzel (2004). Refer to, among others, Economides (1996) for benefit (3), and to Langlois and Robertson (1992) for benefit (4).

directly experienced. For example, a South African from the Gauteng Province will probably find it easier to use public services such as the post office, phone and roads in the Western Cape Province than in Italy, even though both places are geographically far from home. As a matter of fact, by decreasing the transaction costs of using public services as well as private ones (ATMs, fast-food restaurants, etc.), the standardization of “behavioural interfaces” encourages greater mobility in the use of resources, which in turn allows resources to flow more quickly to their most valued uses.

4.4 PROMISING AREAS FOR STANDARDIZATION

In areas where carriers, contributors and beneficiaries face common challenges and (at least should) share objectives, standardization will encourage timely settlements and benefits, and in the main will help improve worker protection. In those cases where standards are present but not uniform (e.g., claim forms, data formats), at times it may be a matter of indifference what common conduct is ultimately employed as long as it is the same given the industry learning that has already occurred and the ability of standards to incrementally evolve. Lack of standardization raises administrative costs of coordinating, policing, and transacting as well as other costs (e.g., the opportunity cost of claiming for compensation), and creates unnecessary barriers for a cost-effective, fair, opportune and transparent service delivery. With this in mind, the report extrapolates the following standardization areas for improvement based on the analysis presented in the previous pages.

- A. Compensation Payments. This involves the standardization of payments for type of disablement across different carriers. For example, in case of permanent disablement both the COIDA and the ODMWA could offer lump sum or monthly payments.
- B. Rehabilitation of Workers. The process whereby all carriers would attempt to re-consider the rehabilitation of workers after serious injury according to the same guidelines.
- C. Projected Earning Capacity. The process whereby PD is calculated in relation to an employee’s earning capacity. For example, if a worker has just entered the workforce or into an apprenticeship and is injured or contracts an occupational disease then his or her earning capacity will remain at the entry level or at up to five years experience rather than growing.
- D. Tariff Harmonization. Establishes the same tariff rates according to the same method of calculation (e.g., actuarial).
- E. Access to Information. The process by which carriers obtain historical usage information and other applicable worker data as well as the usage of data in claims process.
- F. Interfaces. The interface between the employee or the employer and the carrier should be standardized (e.g., claim form for compensation).
- G. Standard Electronic Transactions. The standard data set and format for exchanging information among the employee, employers and carrier.
- H. Notification. The process by which, for instance, the accident/disease maximum period for notification is transparent and clear for the carrier, employee and employer.
- I. Liability. The fact that the Compensation Fund is ultimately responsible for the compensation of all workers irrespective of contribution on behalf of employers raises issues of liability determination.

- J. Dispute Resolution. There is a need for a swift and predictable audit and resolution process. For instance, this would aid the recent backlog of claims from test-case “class interest” litigation.
- K. Mechanism Design. The means to address non-compliance by the Compensation Fund: the behavioural rules of conduct against which to assess the compliance and non-compliance of a carrier by the Compensation Fund.
- L. Policing. The means by which the Compensation Fund polices and establishes compliance should be based on the same data.

There is analogous precedent recognizing the economic, practical and social advantages of standardization at both international and national levels. Think of the International Organization for Standardization (ISO) that has facilitated commerce and communication throughout the globe with its international codes for country names, currencies and languages; with format standardization of telephone and banking cards; and with the promotion of internationally standardized freight containers and accompanying standardized documents. In South Africa, the Department of Labour and the Department of Mines for example deal with preventative standards. And in the United States, the Federal Trade Commission for instance created standards for labelling lighting efficiency, textile fibre products, and wood products; and the Federal Drug Administration in coordination with the Food Safety and Inspection Service of the Department of Agriculture created US national standards for food labelling, which include rules for labelling format, mandatory components, serving size, etc.

4.5 BENEFITS TO THE WORKER

The uniformity of business and administrative procedures can reduce the barriers of different practices and data formats that are now largely the artefacts of the individual carriers. The primary beneficiary is the worker, since uniform standards allow competitive compensation suppliers to offer increased savings. This is an additional step towards a more efficient industry, with all its well-known benefits. Moreover, the development of standards in areas such as payments, rehabilitation, and earning capacity will further protect the worker.

A broader benefit concerns the speed with which market adjustments take place. Any successful common-sense streamlining that shortens the duration of sub-optimality, such as the adoption of common standards, will speed up the benefits to the worker, and improve the efficiency of the industry more generally.

4.6 GOVERNMENT AND INDUSTRY PERCEPTION

The findings and diagnosis of this report resonate with the current general perception of government and industry. The Compensation Fund for example contends that there is currently a problem of claims filed with incorrect government departments. It is not uncommon to find that compensation claims applicable to the COIDA are submitted to the Health Department and vice versa. In addition, there is the general awareness that due to the lack of coordination between government departments, in some cases double compensation is paid (to repeat: double dipping). Lastly, it is known that employees claiming for mining illnesses under the Occupational Diseases in Mines and Works Act 73 of 1973 receive different (and considerably less) compensation for those mining illnesses that fall under the COIDA. These are just three cases recognized by government and industry where unclear standards of

behavioural conduct pertaining to procedure (and compensation) create deadweight losses. These cases affect the equitability of the claims for occupational injuries and diseases as well.

5 CONCLUSION

This report provides a first sketch of workers' compensation history, processes and industry in the Republic of South Africa. It finds that workers' compensation is overall socially on the right track. But because social and economic benefits do not necessarily always overlap or move at the same pace, the report also identifies scope for economic improvement, which could lead to further social improvement. The analysis reveals that standardization can be improved. The absence of clearly-defined standards in several fundamental areas of the compensation industry threatens not to maximise socioeconomic efficiency. The report accordingly presents a cost-benefit discussion of standardization as well as areas of compensation where standardization can be improved.

The role of government remains important, though its scope and purpose may need some redefinition. First, since the Compensation Fund is a government organization already vested with a monitoring function over FEM and Rand Mutual, it could also guide the implementation of new and revised standards and later monitor their adoption and efficacy. Secondly, at a subsequent stage, the government could reconsider the role of the Compensation Fund from being both a source of compensation and a monitor of the FEM and Rand Mutual to being just a monitor of, and system facilitator of, due process of compensation. This second role could also entail that the Compensation Fund could outsource compensation to additional private mutual companies.

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INTERVIEWS

Anthony Carter, 2007, Rand Mutual.

Henry Flint, 2007, Compensation Fund.

Fanie Kruger, 2007, Compensation Fund.

Gys McIntosh, 2007, FEM.

Irma Pieterse, 2007, Compensation Fund.

Thelma Pugh, 2007, FEM.

Kefilwe Tselane, 2007, Compensation Fund.

Professor Robert Vivian, 2007 and 2008, School of Economic and Business Sciences, University of the Witwatersrand, Johannesburg, Republic of South Africa.

APPENDIX I: LAWS REPEALED BY 1993 COIDA

Table AI: Laws Repealed

No. and Year of Law	Title	Extent of Repeal
Act No. 30 of 1941	Workmen's Compensation Act, 1941	In its Entirety
Act No. 27 of 1945	Workmen's Compensation Amendment Act, 1945	In its Entirety
Act No. 36 of 1949	Workmen's Compensation Amendment Act, 1949	In its Entirety
Act No. 5 of 1951	Workmen's Compensation Amendment Act, 1951	In its Entirety
Act No. 51 of 1956	Workmen's Compensation Amendment Act, 1956	In its Entirety
Act No. 7 of 1961	Workmen's Compensation Amendment Act, 1961	In its Entirety
Act No. 21 of 1964	Workmen's Compensation Amendment Act, 1964	In its Entirety
Act No. 58 of 1967	Workmen's Compensation Amendment Act, 1967	In its Entirety
Act No. 9 of 1970	Workmen's Compensation Amendment Act, 1970	In its Entirety
Act No. 27 of 1970	Second Black Laws Amendment Act, 1970	Section 2
Act No. 60 of 1971	Workmen's Compensation Amendment Act, 1971	In its Entirety
Act No. 11 of 1974	Workmen's Compensation Amendment Act, 1974	In its Entirety
Act No. 28 of 1977	Workmen's Compensation Amendment Act, 1977	In its Entirety
Act No. 8 of 1979	Workmen's Compensation Amendment Act, 1979	In its Entirety
Act No. 24 of 1981	Workmen's Compensation Amendment Act, 1981	In its Entirety
Act No. 29 of 1984	Workmen's Compensation Amendment Act, 1984	In its Entirety
Act No. 35 of 1987	Workmen's Compensation Amendment Act, 1987	In its Entirety
Act No. 40 of 1990	Workmen's Compensation Amendment Act, 1990	In its Entirety

Source: COIDA Schedule I, p46

APPENDIX 2: WORKPLACE DISEASES COVERED BY THE COIDA

Table A2: Workplace Diseases

Diseases	Work
A. Any work involving the handling of or exposure to any of the following substances emanating from the workplace concerned:	
Pneumoconiosis-fibrosis of the parenchyma of the lung	Organic or inorganic fibrogenic dust
Pleural thickening causing significant impairment of function	Asbestos or asbestos dust
Bronchopulmonary disease	Metal carbides (hard metals)
Byssinosis	Flax, cotton or sisal
Occupational Asthma	The sensitizing agents (1) isocyanates (2) platinum, nickel, cobalt, vanadium or chromium salts (3) hardening agents, including epoxy resins (4) acrylic acids or derived acrylates (5) soldering or welding fumes (6) substances from animals or insects (7) fungi or spores (8) proteolytic enzymes (9) organic dust (10) vapours or fumes of formaldehyde, anhydrides, amines or diamines
Extrinsic allergic alveolitis	Moulds, fungal spores or any other allergenic proteinaceous material, 2,4 toluene-di-isocyanates
Any disease or pathological manifestations	Beryllium, cadmium, phosphorus, chromium, manganese, arsenic, mercury, lead, fluorine, carbon disulfide, cyanide, halogen derivatives of aliphatic or aromatic hydrocarbons, benzene or its homologues, nitro- and amino-derivatives of benzene or its homologues, nitroglycerine or other nitric acid esters, hydrocarbons, trinitrotoluol, alcohols, glycols or ketones, acrylamide, or any compounds of the aforementioned substances
Erosion of the tissues of the oral cavity or nasal cavity	Irritants, alkalis, acids or fumes thereof
Dysbarism, including decompression sickness, baro-trauma or osteonecrosis	Abnormal atmospheric or water pressure
Any disease	Ionising radiation from any source
Allergic or irritant contact dermatitis	Dust, liquids or other external agents or factors
Mesothelioma of the pleura or peritoneum or other malignancy of the lung	Asbestos or asbestos dust
Malignancy of the lung, skin, larynx, mouth cavity or bladder	Coal-tar, pitch, asphalt or bitumen or volatiles thereof
Malignancy of the lung, mucous membrane of the nose or associated air sinuses	Nickel or its compounds
Malignancy of the lung	Hexavalent chromium compounds, or bis chloromethyl ether
Angiosarcoma of the liver	Vinyl chloride monomer
Malignancy of the bladder	4-amino-diphenyl, benzidine, beta naphthylamine, 4-nitro-diphenyl
Leukaemia	Benzene
Melanoma of the skin	Polychlorinated biphenyls
Tuberculosis of the lung	(1) crystalline silica (alpha quartz) (2) mycobacterium tuberculosis or MOTTs (mycobacterium other than tuberculosis) transmitted to an employee during the performance of health care work from a patient suffering from active open tuberculosis
Brucellosis	Brucella abortus, suis or mellitensis transmitted through contact with infected animals or their products
Anthrax	Bacillus anthracis transmitted through contact with infected animals or their products
Q-fever	Coxiella burneti emanating from infected animals or their products
Bovine tuberculosis	Mycobacterium bovis transmitted through contact with infected animals or their products
Rift Valley Fever	Virus transmitted by infected animals or their products
B. Any work involving the handling of or exposure to any of the following:	
Hearing impairment	Excessive noise
Hand-arm vibration syndrome (Raynaud's phenomenon)	Vibrating equipment
Any disease due to overstraining of muscular tendonous insertions	Repetitive movements

Source: COIDA Schedule 3, p. 48.

APPENDIX 3: PROCEDURE FOR CALCULATING COMPENSATION

Table A3: Calculation Procedure

Nature of Disablement	Degree of Disablement	Nature of Benefits	Procedure for Calculating Benefits
Temporary	Total	Periodic Payments	75% of monthly earnings to max earning of R15,820 pm i.e. R11,865 max compensation
Permanent	30%	Lump Sum	15 times monthly earnings (min of R28,215 and max of R132,930 compensation)
Permanent	Less than 30%	Lump Sum	As calculated for 2 in the same proportion as the degree of permanent disablement.
Permanent	100%	Monthly Pension	75% of monthly earnings to a min earnings of R1,881 pm and max earning of R15,820 pm i.e. compensation between R1,410.75 and R11,865 pm.
Permanent	Greater than 30%, Less than 100%	Monthly Pension	As calculated for 4 in the same proportion as the degree of permanent disablement.
Fatal	Dependent no children	Lump Sum	Twice the employee's monthly pension payable under 4
Fatal	Dependent and child/ren	Monthly Pension	40% of monthly pension payable under 4 to dependent
Fatal	Dependent and child/ren	Monthly Pension	20% of monthly pension payable under 4 for first child, decreasing in % for subsequent children. Total to dependent and children not to exceed 100%
Fatal		Funeral Costs	A reasonable amount of funeral costs to maximum R9,200.

Source: COIDA Schedule 4, p. 50 and Rand Mutual (2006).

APPENDIX 4: DEGREES OF PERMANENT DISABLEMENT

Table A4: Degrees of Disablement

Injury	Percentage of Permanent Disablement	
Loss of two limbs	100	
Loss of both hands, or of all fingers and both thumbs	100	
Total loss of sight	100	
Total paralysis	100	
Injuries resulting in employee being permanently bedridden	100	
Loss of arm at shoulder	65	
Loss of arm between elbow and shoulder	65	
Loss of arm at elbow	55	
Loss of arm at between wrist and elbow	55	
Loss of hand at wrist	50	
Loss of four fingers and thumb of one hand	50	
Loss of four fingers	40	
Loss of thumb:	Both phalanges	25
	One phalanx	15
Loss of index finger:	Three phalanges	10
	Two phalanges	8
	One phalanx	5
Loss of ring finger:	Three phalanges	8
	Two phalanges	6
	One phalanx	4
Loss of little finger:	Three phalanges	6
	Two phalanges	5
	One phalanx	3
Loss of metacarpals:	First, second or third (additional)	4
	Fourth or fifth (additional)	2
Loss of leg:	At hip	70
	Between knee and hip	45 to 70
	Below knee	35 to 45
Loss of toes:	All	15
	Big, both phalanges	7
	Big, one phalanx	3
	Toes other than big toes:	
	Four toes	7
	Three toes	5
	Two toes	3
One toe	1	
Loss of eye:	Whole eye	30
	Sight	30
	Sight except perception of light	30
Loss of hearing:	Both ears	50
	One ear	7

Note 1: Total permanent loss of the use of a limb shall be treated as the loss of the limb.

Note 2: Any injury to the left arm or hand and, in the case of a left-handed employee, to the right arm or hand, may in the discretion of the Director-General be rated at ninety percent of the above percentage.

Note 3: If there are two or more injuries the sum of the percentages for such injuries may be increased, in the discretion of the Director-General.

Source: COIDA Schedule 2, p. 47.

APPENDIX 5: CARRIERS' DETAILS

Table A5: Carriers

	Rand Mutual	Federated Employers Mutual Assurance Company	Government Compensation Fund
Public/Private	Private	Private	Public
Sector Covered	Mining	Construction	Rest
Founded	1894	1936	1941
Physical Address	Head office: 16th Floor Edura Building 41 Fox Street Johannesburg	Head office: Building 2, 1st Floor 101 Central Street Houghton	Compensation House Corner Hamilton and Soutpans Streets Pretoria
Postal Address	PO Box 61413 Marshalltown 2107	Private Bag 87109 Houghton 2041	PO Box 955 Pretoria 0001
Website	http://www.randmutual.co.za	http://www.fema.co.za/	http://www.labour.gov.za/

APPENDIX 6: TARIFFS FOR SUBCLASSES, 2000-2006

Table A6: Tariffs

Sub-class	2000	2001	2002	2003	2004	2005	2006
0111	R1.70	1.70	1.67	1.67	1.72	1.72	1.89
0114	R1.73	1.73	1.70	1.70	1.77	1.77	1.77
0116	R2.72	2.99	2.99	3.11	3.14	3.14	3.14
0118	R1.43	1.43	1.43	1.43	1.44	1.44	1.58
0300	R3.46	3.98	3.98	3.98	3.98	3.98	3.78
0400	R5.27	5.27	5.27	5.27	5.27	5.27	5.80
0411	R2.69	2.69	2.69	2.69	2.69	2.69	2.47
0420	R1.38	1.38	1.38	1.38	1.38	1.38	1.38
0440	R3.55	3.55	3.50	3.50	3.50	3.50	3.68
0441							0.00
0500	R2.20	2.20	2.20	2.20	2.20	2.24	2.24
0501	R1.54	1.59	1.59	1.59	1.59	1.59	1.59
0502	R8.26	8.26	8.26	8.26	8.26	8.26	8.26
0505	R6.06	6.06	6.06	5.88	5.88	5.88	5.41
0512	R2.55	2.55	2.55	2.55	2.55	2.55	2.42
0521	R0.83	0.85	0.85	0.85	0.85	0.85	0.81
0530	R4.00	4.12	4.12	4.12	4.33	4.33	4.33
0531	R1.56	1.56	1.56	1.56	1.56	1.56	1.64
0532							0.00
0600	R1.70	1.70	1.70	1.79	1.79	1.79	1.97
0601	R0.93	0.93	0.90	0.90	0.93	0.93	1.02
0610	R1.17	1.17	1.17	1.17	1.17	1.17	1.17
0612	R0.90	0.90	0.90	0.90	0.90	0.90	0.90
0613	R0.95	0.95	0.92	0.92	0.92	0.92	0.92
0621	R1.45	1.45	1.45	1.45	1.45	1.45	1.45
0622	R1.13	1.13	1.13	1.22	1.22	1.22	1.29
0630	R0.91	0.91	0.91	0.86	0.86	0.86	0.86
0640	R0.99	0.99	0.99	0.95	0.95	0.95	0.95
0641	R0.87	0.87	0.87	0.87	0.87	0.87	0.83
0642	R0.96	0.96	0.96	0.96	0.96	1.10	1.10
0643							0.00
0650	R0.50	0.50	0.50	0.50	0.50	0.50	0.50
0700	R0.83	0.83	0.83	0.83	0.83	0.83	0.83
0701	R2.06	2.06	2.06	2.06	2.06	2.06	2.22
0712	R0.74	0.74	0.74	0.70	0.70	0.70	0.70
0720	R0.21	0.23	0.23	0.23	0.24	0.24	0.24
0801	R3.26	3.26	3.26	3.26	3.26	3.26	3.26
0810	R1.63	1.63	1.63	1.63	1.63	1.71	1.71
0811	R0.79	0.79	0.79	0.79	0.79	0.79	0.79
0900	R0.60	0.60	0.60	0.60	0.60	0.62	0.62
0910	R1.38	1.38	1.38	1.38	1.38	1.38	1.38
1000	R1.21	1.21	1.21	1.17	1.17	1.17	1.08

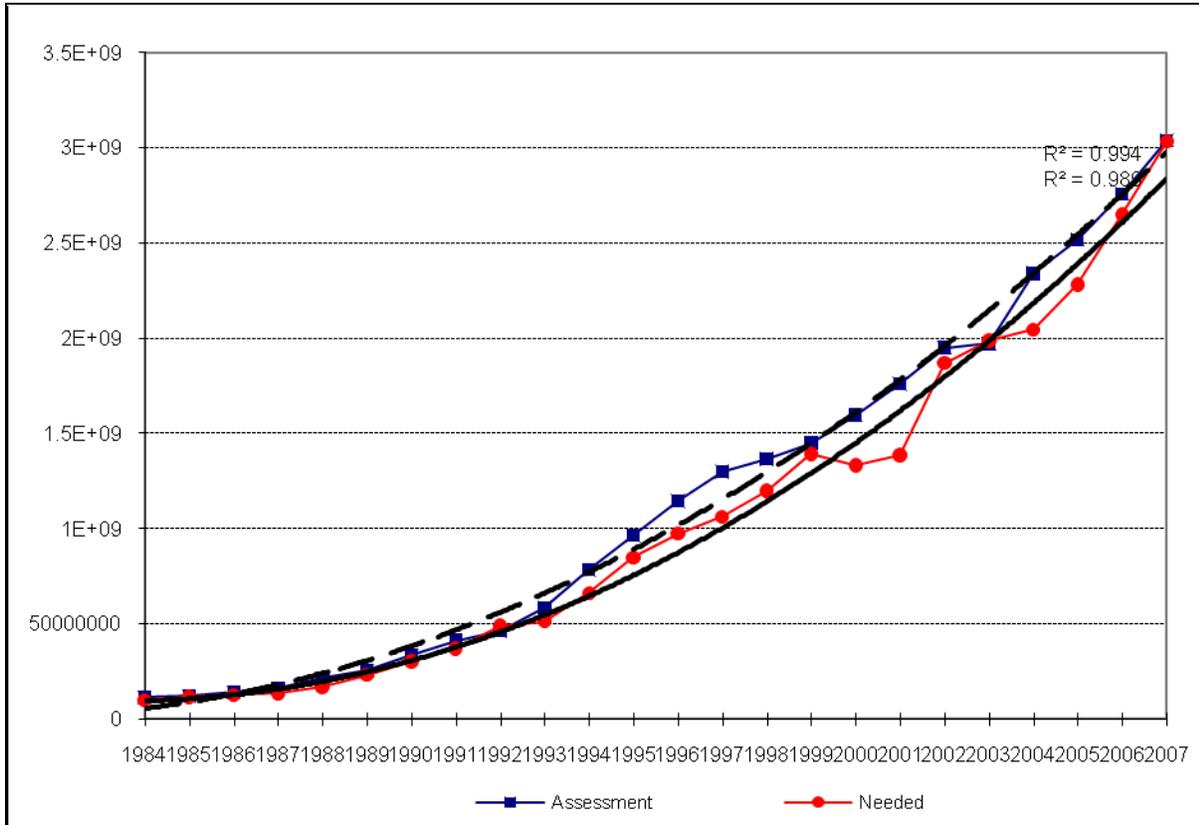
Sub-class	2000	2001	2002	2003	2004	2005	2006
1005	R0.73	0.73	0.70	0.70	0.70	0.70	0.70
1020	R0.86	0.86	0.86	0.86	0.86	0.86	0.86
1021							0.00
1025	R0.85	0.85	0.85	0.80	0.80	0.80	0.88
1030	R0.47	0.47	0.45	0.45	0.45	0.45	0.43
1040							0.00
1041	R0.61	0.61	0.61	0.57	0.57	0.57	0.57
1050	R0.50	0.50	0.53	0.53	0.53	0.55	0.55
1052	R1.14	1.14	1.14	1.14	1.14	1.14	1.14
1053							0.00
1100	R1.25	1.25	1.25	1.16	1.16	1.16	1.07
1105	R0.30	0.33	0.33	0.33	0.35	0.35	0.35
1200	R0.85	0.85	0.85	0.80	0.80	0.80	0.84
1201	R1.92	1.92	1.92	1.88	1.88	1.88	1.79
1210	R0.99	1.04	1.04	1.04	1.05	1.05	1.05
1211	R1.98	1.98	1.98	1.90	1.90	1.90	2.00
1220	R1.48	1.54	1.54	1.54	1.54	1.54	1.62
1230	R2.26	2.26	2.26	2.08	2.08	2.08	2.29
1300	R1.00	1.04	1.04	1.04	1.04	1.20	1.80
1301	R1.86	1.86	1.86	1.86	1.86	2.01	2.01
1331	R0.80	0.80	0.80	0.80	0.80	0.80	0.80
1340	R1.13	1.15	1.15	1.22	1.22	1.22	1.38
1350	R0.65	0.65	0.65	0.65	0.65	0.65	0.68
1360	R0.33	0.33	0.33	0.33	0.33	0.33	0.33
1361	R0.75	0.75	0.75	0.75	0.75	0.75	0.75
1363	R0.85	0.85	0.85	0.89	0.89	0.89	0.89
1400	R0.24	0.26	0.26	0.26	0.26	0.26	0.26
1401	R1.05	1.05	1.05	1.05	1.05	1.05	1.05
1420	R2.24	2.31	2.31	2.31	2.31	2.54	2.54
1511	R0.66	0.66	0.66	0.66	0.66	0.66	0.66
1520	R0.27	0.29	0.29	0.29	0.31	0.31	0.31
1532	R0.48	0.48	0.45	0.45	0.45	0.45	0.43
1540	R0.50	0.50	0.48	0.48	0.48	0.48	0.48
1542	R1.10	1.10	1.10	1.13	1.13	1.13	1.13
1550	R0.46	0.46	0.46	0.46	0.46	0.46	0.46
1600	R0.15	0.15	0.13	0.13	0.13	0.13	0.12
1610							0.00
1701	R0.60	0.60	0.60	0.55	0.55	0.55	0.55
1710	R2.16	2.16	2.16	2.16	2.16	2.16	2.16
1711	R4.31	4.31	4.31	4.31	4.31	4.31	4.31
1715	R1.05	1.08	1.08	1.08	1.08	1.08	1.16
1720	R0.50	0.50	0.48	0.48	0.48	0.48	0.48
1722	R3.76	3.81	3.81	3.81	3.81	3.81	3.62
1723	R1.06	1.10	1.10	1.10	1.10	1.10	1.16
1730	R0.32	0.32	0.32	0.32	0.32	0.32	0.29
1745	R0.56	0.56	0.56	0.54	0.54	0.54	0.54

Sub-class	2000	2001	2002	2003	2004	2005	2006
1750	R0.74	0.74	0.74	0.74	0.75	0.75	0.81
1800	R0.90	0.93	0.93	0.93	0.93	0.93	0.93
1810							0.00
1820	R0.70	0.70	0.70	0.70	0.70	0.70	0.70
1900	R0.50	0.50	0.47	0.47	0.47	0.49	0.49
1910	R0.74	0.74	0.74	0.74	0.74	0.74	0.74
1920	R0.06	0.06	0.06	0.06	0.06	0.06	0.06
1940	R1.35	1.35	1.35	1.35	1.35	1.35	1.35
1960	R0.38	0.38	0.36	0.36	0.36	0.36	0.36
1970	R3.29	3.29	3.29	3.29	3.29	3.29	3.29
1975			1.00	1.00	1.00	1.00	1.00
2000	R0.45	0.45	0.45	0.45	0.45	0.45	0.43
2010	R0.55	0.55	0.55	0.52	0.52	0.52	0.49
2011	R5.15	5.15	5.15	5.15	5.15	5.15	5.15
2020	R1.20	1.22	1.22	1.22	1.22	1.22	1.34
2100	R0.16	0.16	0.15	0.15	0.15	0.15	0.14
2110	R0.55	0.57	0.57	0.57	0.57	0.57	0.57
2200	R0.38	0.38	0.38	0.36	0.36	0.36	0.36
2210	R0.14	0.14	0.13	0.13	0.13	0.13	0.13
2300	R0.20	0.20	0.19	0.19	0.19	0.19	0.19
2320	R1.19	1.19	1.19	1.19	1.19	1.19	1.19
2410	R0.40	0.40	0.40	0.40	0.40	0.40	0.40

Source: Compensation Fund Statistician, 2007.

APPENDIX 7: GRAPHICAL PRESENTATION OF TARIFF CALCULATION

Figure A1: Tariff Calculation



Source: Compensation Fund Statistician, 2007.

APPENDIX 8: CALCULATION OF TARIFF REDUCTIONS

Table A7: Tariff Reductions

Reductions	When employer had NO CLAIMS COST over 3 years and:	When employer had CLAIMS COST over 3 years but less than assessment but:	Size of tariff reduction
1		Built up surplus is 1 ½ to 2 times higher than the highest costs in the last three years	10%
2		Built up surplus is 2 to 3 times higher than the highest costs in the last three years	11-20%
3	Built up surplus is between R500 000 and R1 000 000	Built up surplus is 3 to 4 times higher than the highest costs in the last three years	21-30%
4	Built up surplus is more than R1 000 000 and less than R2 000 000	Built up surplus is 4 to 5 times higher than the highest costs in the last three years	31-40%
5	Built up surplus is more than R2 000 000 and less than R3 000 000	Built up surplus is 5 to 6 times higher than the highest costs in the last three years	41-50%
6	Built up surplus is more than R3 000 000	Built up surplus is more than 6 times higher than the highest costs in the last three years	Discretion of Assistant manager

Source: Compensation Fund Statistician, 2007.

APPENDIX 9: CALCULATION OF TARIFF LOADING

Table A8: First Increase

Amount of average assessment over last 3 years	Percentage Loading
Less than R400	Increase the loading to 45%
Between R400 to R4 999	Double the loading but be sure that the loading is not more than the percentage calculated as described below.
Between R5 000 to R9 999	Double the loading but be sure that the loading is not more than the percentage calculated as described below.
R10 000 and higher	Calculate the percentage increase that equates the employer's assessment to his claims costs based on his average assessments and costs of the last 3 years. Increase the loading to half of this percentage. Break-even point is calculated as: $\frac{\text{Costs}}{\text{Assessment}} \times 100 - 100$

Example I:

The average assessment of an employer is R17 340. The average cost is R65 432. The built-up deficit over three years is R144 276 and the last 4 years were deficits. The calculation will be as follows:

% increase to give an assessment of R65 432 = $\frac{65432}{17340} \times 100 - 100 = 377 - 100 = 277$. Half of this is: $277/2 = 138.5$. Thus, the loading will be 139%.

Source: Compensation Fund Statistician, 2007.

APPENDIX 9: CALCULATION OF TARIFF LOADING (CONTINUED)

Table A9: Second and Further Increases

Amount of average assessment over last 3 years	Percentage Loading
Less than R400	Double the loading but be sure that the loading is not more than the percentage calculated as described below.
Between R400 to R4 999	Double the loading but be sure that the loading is not more than the percentage calculated as described below.
Between R5 000 to R9 999	Double the loading but be sure that the loading is not more than the percentage calculated as described below.
R10 000 and higher	Calculate the percentage increase that equates the employer's assessment to his claims costs based on his average assessments and costs of the last 3 years. Increase the loading to this percentage. Break-even point is calculated as: $\frac{\text{Costs}}{\text{Assessment}} \times 100 - 100$

Example 2:

The employer's rate should have been increased by 139% (as was shown in the example 1). But, after 2 years it is clear that the employer has not reduced accidents. The average assessment is now R20 741 while the average cost is R126 521. The calculation of the second loading will be:

% increase to break-even = $\frac{126521}{28741} \times 100 - 100 = 610 - 100 = 510$. Thus, the employer's rate should be increased by 510%.

Source: Compensation Fund Statistician, 2007.