

The Issues of Workplace Safety and Public Policies in Hong Kong

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摘要

職業安全問題近年來成為香港公眾十分關注的一個問題。由政府公布的工傷死亡率數字可看出，香港的職業安全問題遠較一些發達的西方國家嚴重。本文從經濟學的角度簡述了職業安全與勞工市場及政府公共政策之間的關係，並總結了作者所作的一項公共政策對職業安全影響的仿真研究的結果，提出了可供政府參考的一些未來政策調整建議。

I. Introduction

Hong Kong has long been criticised for its poor workplace safety records. The work-related fatality rate for Hong Kong is several times those in the US and the UK (see Table 1). In the past 10 years, 2000 workers in total were killed and 100,000 were injured at work. The construction of the Chek Lap Kok airport alone cost 49 workers' lives.

Table 1. Comparison of Safety Systems in the US, UK and HK for 1995

	US	UK	HK
Fatality rate (1/100,000)	5.65	2.28	14.32
Inspections	94,539	88,571	89,138
Inspections resulting in citations	31,198	1,499	3,387
Average fine per inspection	US\$955	US\$4,597	US\$1,494
Number of firms	1,086,923	286,235	102,807
Production sector:			
Probability of Inspection	0.09	0.31	0.87
Expected Fine	US\$27	US\$24	US\$49
Experience-rated insurance system	yes	no	yes
Wage replacement ratio for a death under Workers' Comp.	0.5	0.24*	0.3**

* Paid under the State Incapacity Benefit (Long-term rate). However, this rate does not include other possible State benefits, such as child benefits, etc. The UK benefits are also not directly linked to employers' contribution.

** For HK, the 30% rate is estimated based on a person at age of 40 when injured.

Each year, several serious industrial accidents hit the headlines of local newspapers and prompt a renewed debate on whether Hong Kong needs more stringent government workplace safety regulation. A recent consultation paper prepared by the Education and Manpower Branch (1995) concluded that a better way to control workplace accidents would be to place more emphasis on self-regulation by employers and employees whose own workplace behaviour determines accident rates. However, many unionists and workers believe that more effective direct regulation is needed to control industrial accidents in Hong Kong.

Without knowing the efficiency of direct government regulation it is difficult to determine whether society would be better off with stricter regulations. A recent research project by this author together with Ho Lok Sang, Robert Sandy and Stan Siebert attempted to look at this issue with a simulation model. This short paper intends to discuss some of the theoretical issues behind this study and summarizes its main findings.

II. The Economics of Workplace Safety and Policies

According to standard economic theory, a worker is paid both in terms of wages and working conditions. We can think of the "full wage" of a job as being the money wage adjusted for the benefits and disamenities of the job. A worker's skills determine his/her full wage, and his/her tastes then determine the mix between money wages and working conditions. Workers seek out jobs that have the mix of wages and working conditions that they prefer. Given competition, the job characteristics that workers generally dislike should then command high wages, other things equal. Such jobs will offer positive compensating wage differentials (CWDs). Jobs with enjoyable working conditions conversely will offer negative CWDs. This is a reflection of the "law of one price" operating in a competitive labour market.

One could argue that, provided that the market operates freely, the resulting equilibrium in wages and safety levels would allow people get what they want, and so no government intervention will be needed. However, workplace safety possesses the characteristics of a public good. Many safety measures affect the safety levels of all workers at the same workplace. In addition, there is also the problem of asymmetric information. It may be difficult for a new employee to know the true workplace safety level of a firm and may therefore not demand the fair CWDs. Both of these problems may be alleviated with the presence of trade unions which may monitor the performance of the firm/industry continuously. However, firm/industry based unions may or may not be present, while wider-based unions may act to represent the interest of "median voters" and therefore ignore those of the marginal workers who carry out the most dangerous jobs. Furthermore, workplace safety is something the entire

society can be proud of, while a poor safety record may be taken as shameful.

With these labour market imperfections in mind, government policies are often called for to regulate the workplace safety and/or to compensate injury workers. The typical policies conducted by many governments are: (1) to regulate workplace safety levels by setting up standards and codes of practice; (2) to run a no-fault compulsory insurance system to cover compensation for workers suffering from injuries. However, it is often found that the working of these policies is not all that satisfactory. Typically, accidents rates dropped somewhat immediately after the implementation of these policies and then more or less stagnated. The problems associated with the policies are as follows. First, it is simply difficult to enforce safety standards. Second, the fines associated with the violation of standards are often too low due to the fear of driving firms out of their business. Third, workers' compensation insurance serves the role of *ex-post* compensation for injury while CWDs serve the role of *ex-ante* compensation for injury. In general, compulsory insurance schemes cannot serve as an extra punishment for accident-prone firms, given the rather meagre compensation under insurance schemes. (My estimate for the value of a statistical life using CWDs in Hong Kong is about HK\$10.8, which is six times higher than the highest compensation for workers suffering from fatal or total disability accident). Fourth, higher benefit level tends to attract more reports of accidents and claims. Raising benefit levels may also make workers take less precaution. Finally, market adjustments can never take care of the external cost of accidents on society at large due to a record of high industrial fatalities and injuries.

III. The Policy Simulation and Its Main Results

The current setting of the working place health and safety policy in Hong Kong is mainly governed by three legislations, namely the Factories and Industrial Undertakings Ordinance, the Occupational Health and Safety Ordinance and the Employees' Compensation Ordinance. The former two Ordinances empower the government to set up and enforce various safety regulations while the last Ordinance establishes a no-fault, non-contributory employees' compensation system whereby all employers are required by law to buy insurance to cover compensation.

In Table 1, we compare Hong Kong's workplace safety policies with those of the US and UK. It confirms that Hong Kong's current policy settings combine some of the advantages of the policies in both the US and the UK. In particular, the employees' compensation insurance system in Hong Kong possesses some features of an experience-rated insurance system, which can stimulate employers to improve safety. The regulatory framework in Hong Kong bears much resemblance to the UK system. Targeted safety inspection of highly risky workplace and relatively strict enforcement of safety standards proved to be important to reduce workplace accidents in Hong Kong. However, there are also a number of weaknesses in Hong

Kong's current system. *Compared with the US, the benefit levels of the employees' compensation insurance system may be too low to create enough incentive for employers to reduce accidents.* The persistent high accident rates in the construction sector indicates that the enforcement actions taken by the Labour Department may not be sufficient for some of the employers in HK. The average fine charged for violation of safety standards in the UK is several times higher than that in HK.

Since Hong Kong has relatively low benefits under its Workers' Compensation system and relatively low expected fines, it clearly has the ability to substantially raise either of these variables. We conduct policy simulation to gauge the effects of changes to each of these policies.

Our simulation results revealed that although a large increase in employees' compensation benefits created more incentive for employers to control accidents, it has very minor effects on the overall safety level. This is because it encourages employees to take more risky jobs. It casts doubt over the claim that the benefit levels are too low and an increase in benefits in Hong Kong may reduce accidents. However, we did find that a greater use of experience-rated insurance helps to reduce accidents. Next, we found that the increase of fines for violation of safety regulations may have more significant effects on reducing accidents. But, as the required increase is substantial for the policy to have a significant impact it is therefore envisaged that such a change would be difficult to implement. An alternative policy that can significantly reduce accidents but without significantly raising the average fine is a progressive injury tax policy that makes accident-prone firms pay more fines. Our simulation model should be useful for future policy studies in this area.

To conclude, we have the following recommendations for the government:

- Step up enforcement actions against accident-prone firms specially those in the construction sector, in part by increasing fines, in part by strengthening inspections;
- Devote more resources into accident data collection and analysis and publish more data to the public.
- Strengthen legislation to punish those firms who cheat on insurance premiums by understating their payrolls to insurance companies.
- The government should NOT increase employees' compensation benefit sharply as this will not help reduce accidents.
- In the long-run, we suggest that the government needs to review the current costs of the employees' compensation insurance, specially its associated tort costs, and seek to improve a more effective, less costly compensation mechanism.
- We strongly propose that the government consider introduce an injury tax mechanism with progressive tax rates. The injury tax is charged on a firm when it commits an industrial accident regardless of whether the firm has violated safety standards or not.

A steep tax will certainly make employers find more effective ways of reducing accidents.

For firms that have violated safety standards, the government should be bold in laying charges and the courts should be more ready to impose further fines and/or other punishments. The levy and fine collected from accident will then be put into a fund to compensate injured workers. Such a system can reduce the huge administrative and tort costs of the insurance system and can also increase incentives for firms to reduce accidents.