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Barbara McIntosh  
*University of Vermont*



Chapter 15 (pp. 347-372) in:  
**Current Issues in Workers' Compensation**  
James Chelius, ed.  
Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 1986  
DOI: 10.17848/9780880995443.ch15

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## **Accident Compensation as a Factor Influencing Managerial Perceptions and Behavior in New Zealand**

Barbara McIntosh  
School of Business  
University of Vermont

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Governments legislate remedies when other segments of society fail, or are perceived to fail, to respond to a particular need. A prime example is in the area of health and safety. The belief that there were excessive industrial accidents was taken as evidence that the private sector was not doing enough with health and safety in the work environment, and remedies were not only insufficient but difficult to secure. Throughout the 1970s sensitivity to the suffering caused by industrial accidents and the lack of recourse led many countries to direct more attention to the problem. In New Zealand, this response resulted in the most extensive no-fault accident compensation legislation in existence today. All persons who suffer a personal injury by accident are compensated, regardless of whether or not the injury is employment-related.

Certainly the intent of New Zealand's legislation is laudable, but it is critical to examine the manager's ex-

perience within such a system because legislation does not always result in the intended consequences. For example, rather than reducing lost time from industrial accidents, comprehensive compensation provisions may, in fact, have the opposite effect. Since compensation becomes the accident victim's entitlement and right, there may be an increase in the number of accidents reported and/or the duration of time off resulting from an accident. If the legislation results in this behavior, the economic burden on the employer is greater and this shift may, in turn, cause the employer to reduce prevention program initiation and/or compliance. In this case, the number of accidents may go up and the outcome is opposite the original intent of the legislation to reduce suffering.

Obviously, employers are a critical link in implementing and financing the provisions of health and safety compensation legislation. Thus, one must determine to what extent health and safety legislative provisions influence management's perceptions concerning employee behavior and their subsequent decisionmaking in the health and safety area. Do employers perceive that the provisions facilitate or hinder organizational health and safety activities? Do the legislative provisions shift a greater economic burden onto the employer because employee behavior changes? Are other institutions or groups more influential than the government in the firm's administration of health and safety programs?

The answers to these questions obviously have both management and public policy implications. Management's response within the context of multiple external pressures will affect future legislation as it is modified to achieve the intent of the original law and *vice versa*. Understanding the influence exerted by other factors, including other firms, unions, employee groups, and other government rules and regulations, will also provide insight into the most effective implementation approaches. Not only the government but

the employers themselves may be able to use these groups to cooperatively improve health and safety records.

This paper examines employer perceptions and behavior in response to New Zealand's comprehensive accident compensation legislation. In the first section the background of the Accident Compensation Act is briefly reviewed, followed by a discussion of the provisions of the legislation. Provisions for levy rates and incentive rebates under the Safety Incentive Scheme are outlined. The second section examines the current data on industrial accidents in New Zealand, highlighting the data on seven high-risk industries. The third section then outlines the methodology used in collecting survey data on management's perceptions and responses within these high risk industries. The data are reported and, finally, conclusions are drawn.

### **New Zealand's Accident Compensation Act**

Prior to the 1972 Accident Compensation Act, New Zealand's personal injury remedies under the law were fragmented and generally considered insufficient.

- A victim was entitled to a limited form of compensation payable under workers' compensation legislation but only if the accident or disease arose out of work and in the course of employment.
- A victim could claim damages in the Courts if negligence on the part of some other person could be established.
- A victim could draw on funds administered by the Crimes Compensation Tribunal if the injury was caused by the criminal acts of others.
- A victim could receive social security<sup>1</sup> if none of the above remedies was available.

- Owners of motor vehicles were required under the Motor Vehicle Insurance Act of 1928 to insure against death or injury liability (Fahy 1982).

The litigation and inequitable treatment resulting from this fault-based approach (i.e., that an action in law for damages arising out of personal injury or death could only be sustained if negligence on the part of the defendant was proven or admitted) ultimately led to a Royal Commission of Inquiry on Compensation for Personal Injury in New Zealand report in December 1967 (the Woodhouse Report)<sup>2</sup> and passage of the Accident Compensation Act (ACA) in 1972. The 1972 Act and its Amendments were supplanted by the Accident Compensation Act of 1982 which became effective April 1, 1983. The 1982 Act did not alter the concept of the system but rather simplified previous complex wording and improved administrative provisions (Fahy 1983).

The Royal Commission set down several principles upon which the legislation rests:

- Community responsibility;
- Comprehensive entitlement;
- Complete rehabilitation, which would be encouraged by an award not being revisable downward after an initial assessment;
- Real compensation (adequate benefits); and
- Administrative efficiency (Royal Commission 1967).

The purpose of the Accident Compensation Act is thus to provide accident prevention, compensation, and rehabilitation for every man and woman, and protection 24 hours a day. The compensation itself is governed by the personal circumstances of the accident victim. If there is a loss of earnings or a loss of earning power, the compensation payable

under the accident compensation scheme is related to that loss of earnings and earning power. Rehabilitation assistance is also tailored to meet the actual and continuing needs of the accident victim, so the nonearner is covered in this way (Ingilis 1982).

To insure this coverage, three schemes have been implemented: An Earners' Scheme for employed or self-employed persons, a Motor Vehicle Scheme for persons injured in accidents involving motor vehicles, and a Supplementary Scheme for persons not covered under the first two schemes, including homemakers and visitors to New Zealand (Dahl 1976). Broadly, the Earners' Fund and the Motor Vehicle Fund are independently financed and self-supporting, and each is charged with all amounts paid in claims which arise under the respective schemes.<sup>3</sup> The Supplementary Fund is financed from money appropriated for that purpose by Parliament.

### *Employer's Contributions*

Since the focus of this paper is on employer costs and factors influencing their behavior, it is important to examine the Earners' Fund, which is financed by levies on employers and self-employed persons. Through this fund employers finance the earnings-based compensation which is paid to employees who suffer an injury, whether or not such injury arises in the course of employment. The levy paid by the employer is paid at a rate specified for that particular industry activity classification or classifications. All industry, trade, business and professional activities are classified so that the amount of levy collected for each class and the amount of compensation, medical expenses, and other payments provided can be recorded. Work accident accounts are kept by industrial activity classification. A separate nonwork accident account is kept and the costs (compensation, medical expenses and

other payments) are spread equally over all industrial activities. It should be noted that industrial activity refers to the employer, not the occupation of the employee. Thus, the nature of the goods produced or services rendered determines the industrial activity under which the leviable earnings of the employees are classified. The levy rate per \$100 of wages ranges from \$.50 for the provision of actuarial services, the practice of accountancy, the services of administrative agencies, clerical, management activity, etc. to \$5.00 for mining underground, exploring, prospecting and development works (natural gas, minerals, oil) in, on, or above the continental shelf, and tunneling (Accident Compensation Corporation 1983). While higher rates are set for more dangerous activities by the ACC Board, there is not a strict multiplicative relationship between the degree of danger and the levy. In other words, as evidenced in the injury rate (see tables 2 and 3) mining is more than 10 times more dangerous than actuarial services. To some extent then, "safe" activities subsidize more dangerous activities.

The Accident Compensation Act does fix a maximum amount of individual earnings on which the levy is payable. The Accident Compensation Order of 1981 (S. 1981/338) raised this maximum to \$39,000<sup>4</sup> applicable to payments due May 31, 1983. Prior to this, the maximum amount of individual earnings on which the levy was payable was \$18,720. The leviable earnings include wages and salaries, overtime pay, holiday pay, piecework payments, long-service leave pay, bonuses or gratuities, gross commissions, honoraria and allowances for boarding, lodging or housing.

The Earners' Fund gross levy revenue (\$149,317,624) made up 62 percent of the total income (\$242,388,617) received by the Accident Compensation Corporation for the year ending March 31, 1982. At this time there was a credit balance of \$218.2 million in the Earners' Fund, but forecasts

indicated that the fund would be inadequate to meet the long term run-off of claims in years ahead. The shortfall was \$62.7 million (Fahy 1982). The financial implications of this for employers may be very serious.

While a financing deficit is projected, it is interesting to note, as indicated in table 1, that the number of work accident claims remained fairly constant from 1975 through 1981. The proportion of claims on the Earners' Fund for nonwork accidents, however, has been steadily increasing, from 31 percent in 1975 to 43 percent in 1981.

**Table 1**  
**Claims Received by Fund**

Claims received	1975	1978	1981
Total claims	105,018	132,438	128,747
Earners' Fund	91,337	103,481	96,652
Work accidents	(63,212)	(62,826)	(55,607)
Nonwork accidents	(28,125)	(40,655)	(41,045)
Motor Vehicle Fund	9,405	11,563	11,771
Supplementary Fund	4,276	17,394	20,324

SOURCE: *ACC Statistics*, Wellington, Accident Compensation Corporation Vol. 1, No. 1, March 1982, p. 12.

NOTE: Not all claims result in compensation being paid—especially those made to protect the claimant's entitlement in the future.

In addition to paying levies into the Earners' Fund, an employer is also responsible for directly compensating employees 100 percent of their earnings on the day of the accident and during the following six days if the employee is unable to work because of an injury arising out of and in the course of employment (ACA & 112). Effective April 1, 1983, the employer's first week compensation liability also includes any overtime the employee would have worked (Fahy 1983). In practical terms, this means the employer must pay



the employee the full amount he/she would have received had he/she been working. In 1982 it was reported that the cost of this first week's compensation still averaged about 10 cents per \$100 of the leviabale payroll (Fahy 1982, p. 32). If the earner is incapacitated for more than seven days the Commission pays the compensation regardless of whether or not the accident arose out of and in the course of employment<sup>5</sup> (ACA & 113).

### *Safety Incentive Scheme*

The Safety Incentive Scheme rewards those employers whose work-related accident records are significantly better than other employers paying the same industrial activity levy. This is not a no-claims bonus system, but rather is based on actual performance relative to expected performance. In other words, an employer with a perfect record (no accidents for which claims are filed in the period) does not necessarily receive a bonus. If the employer is engaged in low accident activities, no claims would be expected. A significant improvement is thus more likely from employers engaged in activities where the accident rate is expected to be high.

In 1982 the ACC paid out 190 Safety Incentive Bonuses totaling \$1,145,661, based on accident and wages information for the period of April 1, 1978 to March 31, 1981. The bonuses were calculated at 12.5 percent of the net work levy paid for the year ending March 31, 1981.

### **Accident Rate Data**

It is logical to hypothesize that the first week provisions and the Safety Incentive Scheme would provide the employer with an incentive to actively seek health and safety improvements and reduce the accident frequency rate. Unfortunately, it is not possible to make valid comparisons be-

tween data published preceding and following the passage of the Accident Compensation Act. Unlike current provisions, claims made under the old Workers' Compensation Act, for example, included first-week incapacities but excluded injuries to the self-employed (notably farmers). Injuries received traveling to and from work were also not included in previous statistics but are now deemed to be "work-related." These last two factors are significant contributors to the "fatalities" now recorded. The exclusion of the first-week incapacity also means that injury frequency and severity statistics are not compiled as in the past (Accident Compensation Corporation 1982). As shown in tables 2 and 3, an "injury rate" is currently calculated based on the number of compensated accidents per 1000 workers, which does allow comparisons across industries and occupational groups, however.

The industry data in table 2 shows that while the injury rate averages 35 for all industries, it ranges from 86 for mining and quarrying to 5 for finance, insurance, real estate and business services. Manufacturing had the second highest injury rate in 1981, 60, with a total 18,672 compensated accidents. More than one-third of all compensation paid went to manufacturing workers. The highest number of fatalities, 44, was in forestry and fishing but this industry did not have the highest accident rate (compensated claims per 1000 workers) as previously discussed.

By occupation group, the highest injury rate and number of fatalities were recorded for transport equipment operators and laborers as shown in table 3. This occupational group also received nearly two-thirds of the compensation paid in 1981, \$21.2 million. Forest workers, fishermen and hunters had the second highest injury rate, 43, with 45 fatalities. Compensation paid to this occupational group totaled only \$5.1 million, however.

**Table 2**  
**New Zealand's Accidents, Injury Rates and Compensation - 1981**

Industry group	Fatal	Nonfatal	Total	Labor force	Injury rate*	Compensation**
All industries	178	46,117	46,295	1,332,339	35	33,578
Agriculture, hunting, forestry and fishing	44	6,237	6,281	144,249	44	5,084
Mining and quarrying	2	397	399	4,656	86	428
Manufacturing	22	18,650	18,672	311,130	60	11,719
Electricity, gas and water	0	774	774	15,123	51	485
Construction	13	3,411	3,424	85,737	40	3,203
Wholesale and retail trade, restaurants and hotels	14	3,055	3,069	218,439	14	2,390
Transport, storage and communication	28	4,392	4,420	107,829	41	3,769
Finance, insurance, real estate and business services	6	421	427	91,638	5	382
Community, social and personal services	26	6,637	6,663	307,575	22	4,526

SOURCE: Derived from *Summary Report—Compensated Accidents, 1981*, Accident Compensation Corporation, Wellington, New Zealand, 1982.

\*Compensated claims per 1000 of labor force (1981 census).

\*\*Reported in thousands as of May 31, 1982.

**Table 3**  
**Compensated Work Accidents by Occupation - 1981**

Occupational group	Fatal	Nonfatal	Total	Labor force	Injury rate*	Compensation**
All occupations	178	46,117	46,295	1,332,339	35	33,578
Professional, technical and related workers	16	2,033	2,049	183,969	11	54
Administrative and managerial	5	196	201	45,993	4	249
Clerical and related workers	6	1,334	1,340	214,761	6	977
Sales	6	1,135	1,141	127,101	9	959
Service workers	11	2,911	2,922	106,626	27	2,077
Agricultural, husbandry, forest workers, fishermen and hunters	45	6,296	6,341	146,295	43	5,143
Production and related workers, transport equipment operators and laborers	70	30,455	30,525	457,932	67	21,227

SOURCE: Derived from *Summary Report—Compensated Accidents, 1981*, Accident Compensation Corporation, Wellington, New Zealand, 1982.

\*Compensated claims per 1000 of labor force (1981 census).

\*\*Reported in thousands as of May 31, 1982.

## **Employer Decisionmaking**

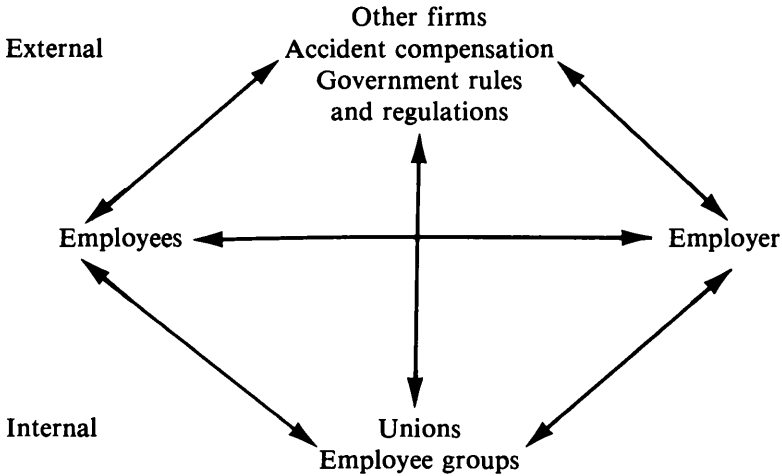
Given the universal coverage of the Accident Compensation Act, the levy system, the employer's responsibility for compensation during the first week, and the presence of an incentive scheme, it is important to examine the employer's response to this legislative initiative. Specifically, four questions need to be addressed:

- To what extent does the availability of accident compensation and government legislation, in general, influence management's response to health and safety compared to other factors such as the union, other firms, employee concerns, and other government rules and regulations?
- To what extent do employers believe that the provisions of the ACA change employee behavior? That is, does the existence of compensation prolong the absence of injured workers, or are more accidents reported as a result of the compensation?
- To what extent do employers believe that their expenditures in the health and safety area are offset by lower accident rates?
- To what extent are the influencing factors and the employer's cost benefit assessment correlated with actual accident behavior in the organization?

The answers to these questions are all related to one another. In terms of cost considerations, price competition and the employment relationship, the employer is going to be influenced by other firms in the industry, government rules and regulations (as distinct from compensation provisions), unions, and other employee groups. Employee behavior can be expected to be influenced by the benefits provided through the government's accident compensation legislation.

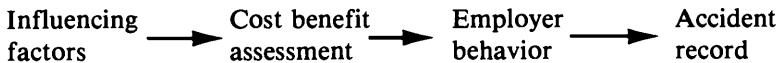
This behavior will in turn affect the employment relationship. The interactive relationship between these factors is shown in figure 1.

**Figure 1**  
**External and Internal Factors**  
**Influencing Employer Perceptions and Behavior**  
**in the Health and Safety Area**



As suggested in the questions above, it is hypothesized that factors influencing an employer’s reaction do not have a direct impact; this influence is instead filtered through the employer’s overall assessment of the costs and benefits of health and safety activities. This relationship is illustrated in figure 2.

**Figure 2**



Employer cost benefit analysis moderates the effect of factors influencing employer behavior and resultant accident record.

With respect to costs, economic theory suggests that organizations assume a proprietary strategy and seek to maximize their return. This classical assumption about economic self-interest does not automatically prescribe a particular treatment of health and safety within the organization, however. On one hand, the employer driven to minimize costs has no incentive to invest in safety programs, machine safeguards, new selection procedures, etc. Accident prevention has explicit costs which can be avoided. On the other hand, accidents themselves are an expense. Accidents may involve disrupted production, damaged equipment, lowered morale resulting in overall lower productivity, compensation payments, recruiting and selection replacement costs, and the payment of wage differentials. The employer may thus choose to invest in accident prevention because "the benefits derived from the safety expenditure are costs which are not incurred" (Berkowitz 1979, p. 53). Certainly some investment in health and safety is economically rational, and it is assumed that these expenditures will have an impact on the organization's accident record.

### **Methodology**

In order to assess the impact of New Zealand's accident compensation provisions in the context of other factors influencing an employer's cost benefit assessment and accident record, intensive information was collected within seven industries, including forestry, pulp and paper, construction, steel, rubber, oil exploration, and chemicals. The distribution of firms between industries was balanced, and within each industry the number of foreign-owned versus domestic firms was also balanced. Data were collected from 19 corporations, as well as from their respective plant operations, for a total of 38 organizations. Eighteen of these organizations were foreign-owned. Six were headquartered in Australia, six in Britain, two in the U.S., two in Holland and

two in Japan. Twenty of the surveyed organizations were domestic enterprises.

Two- to three-hour structured interviews were conducted with the corporate president or chair of the board and/or the senior executive responsible for health and safety within the organization. A second copy of the questionnaire was sent to the general manager of one of the organization's operating facilities. This questionnaire was returned directly to the investigator. Employers responded to detailed questions on organization structure and behavior, and perceptions of factors influencing health and safety administration. Health and safety performance was measured by the level of accidents. Employer response was measured by the hierarchical level of the position of the individual charged with primary responsibility for health and safety, and the percent of this individual's time spent on health and safety issues. Perceptual questions about influential factors, union relations, etc., were measured on a 7-point scale.

## Results

It has been suggested that multiple factors moderate the effect of legislation on management's behavior and their perceptions of this effect. Across the industries sampled, government rules and regulations and the provisions of accident compensation legislation were reported as having a very high influence on health and safety decisionmaking within the firm. The mean influence rating for each of these factors was  $\bar{X} = 5.21$  and  $\bar{X} = 3.77$ , respectively, as shown in table 4. Evaluated on a 7-point scale (1 = not at all influenced, 7 = influenced to a great extent), employers also reported being influenced by employee concerns and demands ( $\bar{X} = 4.08$ ) and to a slightly lesser extent, the union in the plant ( $\bar{X} = 3.52$ ). Employers did not indicate that employee turnover ( $\bar{X} = 1.79$ ) had an impact on the decisionmaking. The



impact of other firms in the industry ( $\bar{X} = 2.78$ ) was also low. This may be explained, however, by the fact that when employers were asked to compare themselves with other firms in the industry, the mean response was  $\bar{X} = 5.49$ , with 7 indicating that they believed they placed much more emphasis on health and safety than did other firms.

**Table 4**  
**Overall Mean Score Evaluation of Factors Influencing**  
**Organizational Health and Safety Perceptions and Behavior**

Influence factor	Mean response $\bar{X}$
National union	2.13
Plant union	3.52
Employee concerns and demands	4.08
Employee turnover	1.79
Other firms in industry	2.78
Accident compensation	3.77
Government rules and regulations	5.21

An analysis of these influential factors by industry, as shown in table 5, revealed that government rules and regulations were most important across all industries. In both rubber and forestry, the accident compensation and the government rules and regulations were linked as the top two influential factors. In the remaining industries, employee concerns and demands constituted the second most important factor. The oil and chemical industries indicated that other firms in the industry was the third most important factor influencing their health and safety decisionmaking, while the other industries, steel, construction, pulp and paper and rubber, rated the union as being the third most influential factor in their respective industries. The mean response in forestry indicated that employee concerns and demands was the third most important factor in that industry.

**Table 5**  
**Extent to Which Factors Influence Health and Safety Decisionmaking**  
**by Industry (mean response on 7-point scale)**

	Rubber $\bar{X}$	Pulp & paper $\bar{X}$	Forestry $\bar{X}$	Construction $\bar{X}$	Steel $\bar{X}$	Oil $\bar{X}$	Chemicals $\bar{X}$
National union	1.67	1.00	2.71	4.00	3.00	5.00	2.00
Plant union	4.50	3.17	2.80	4.00	3.33	5.00	3.00
Employee concerns	4.33	3.66	3.57	4.25	3.33	6.50	4.25
Turnover	1.33	1.00	2.88	2.75	1.00	NA	1.33
Other firms in industry	2.40	1.66	2.88	3.33	2.33	6.00	3.50
Potential law suits	1.00	1.33	2.86	3.25	1.33	2.00	2.50
Accident compensation	4.50	3.00	5.63	3.25	2.66	1.00	2.66
Government rules and regulations	4.83	5.16	5.38	4.75	6.00	7.00	5.00

In order to assess the nature of this perceived influence, the question was asked whether the influence exerted by these factors was positive or negative. In other words, did the managers believe that other firms, the union, employees, etc., facilitated or hindered their efforts in the area of health and safety administration. Certainly it would be possible for one of these factors to be exerting a great deal of influence, but in a counterproductive fashion. In fact, in no case did the 34 employers respond that these factors hindered their health and safety efforts. With the exception of the response to government rules and regulations ( $\bar{X}=5.49$ ), employers viewed these factors as fairly neutral, that is, neither facilitating nor hindering their health and safety efforts. The mean ratings on the other factors were between  $\bar{X}=3.64$  for employee turnover and  $\bar{X}=4.97$  for employee concerns.

### *Cost-Benefit Assessment*

Obviously one or two factors, whether internal or external to the organization, will not in and of themselves change an employer's behavior with respect to health and safety decisionmaking. These factors interact with each other and organizational factors such as the amount of time spent on health and safety and the position level of the individual with primary responsibility for health and safety within the organization. The employer then considers these aspects and screens their impact in the context of the economic return to the organization.

As previously discussed, legislation affects not only employer compliance behavior but also employee behavior, which in turn has an economic impact on the firm. One reservation about the accident compensation legislation, for example, is the fear that the system will be abused. If employees view the provisions as benefits to which they are entitled, which in fact they are, more accidents which the

employee would previously have simply worked through may be reported. It is also possible that the employee will be absent from work longer with a given accident because he or she is receiving compensation. In fact, when the employers were asked, "To what extent do you believe that more accidents are reported as a result of accident compensation?" the mean response was  $\bar{X} = 5.31$ , with 1 indicating "not at all" and 7 indicating "to a great extent." The mean response to the question, "To what extent does the existence of accident compensation prolong the absence of injured workers," was also high ( $\bar{X} = 5.00$ ).

In order to assess the overall economic impact of accident compensation legislation and other influential factors, employers were asked "To what extent do you believe that your expenditures in the health and safety area are offset by your accident rates?" The perception of worker's absence, given the presence of a compensation system, was not significantly correlated with this overall cost-benefit assessment, but was significantly correlated with beliefs about the number of accidents reported. The greater the extent to which employers felt more accidents were reported, the less likely they felt that their costs in the health and safety area were offset by the benefits. As shown in table 6, the overall assessments of the influence of accident compensation legislation and government rules and regulations were not significantly correlated with the employer's cost-benefit analysis. Other factors influencing health and safety decisionmaking which are significantly correlated with the employer's cost-benefit assessment include the union and employee turnover.

Organizational characteristics which were positively correlated with the manager's cost-benefit analysis at a significance level less than .05 included the size of the corporation measured in terms of number of full-time

employees ( $r = .28$   $p < .05$ ). If the firm was headquartered in New Zealand, the employer was also more likely to feel that the costs were offset by the benefits or lower accident rates ( $r = .27$   $p < .05$ ).

**Table 6**  
**Correlation Between Factors Influencing Health and Safety**  
**Decisionmaking and Employer Cost-Benefit Analysis**  
**(Pearson Product Moment Correlation Coefficients)**

Influence	Cost-benefit coefficient
National union	.30**
Plant union	.27*
Employee concerns	-.0
Employee turnover	-.22*
Other firms	.21
Accident compensation	-.04
Government rules and regulations	-.01

\* $p < .10$

\*\* $p < .05$

### **Influencing Factors, Cost-Benefit Analysis and Accident Record**

The impact of legislation and other factors is important not only in terms of the degree of influence on decisionmaking and the employer's subjective assessment of the costs and benefits. More significant is the relationship between these elements and actual accident behavior in the organization. Given the number of factors influencing health and safety outcomes, is accident compensation correlated with lower accident rates, or is the direct effect erased by the economic impact of unintended consequences, i.e., more accidents being reported and longer absences by those who claim compensation?

Table 7 shows that accident compensation legislation, as a factor influencing employer decisionmaking, is positively correlated with the accident rate ( $r = .33$   $p < .05$ ). This finding may simply reflect the fact that the more accidents in an organization, the more likely it will have transactions with the Accident Compensation Corporation. The relationship between government rules and regulations and the accident rate in 1982 was significant and in the expected direction ( $r = -.39$   $p < .05$ ). The greater the reported influence of the government, the lower the accident rate. Another external factor significantly correlated with the accident rate was the influence of the national union ( $r = .55$   $p < .05$ ). The relationship is not in the expected direction. The coefficient indicates that the national union influence was stronger in those organizations with higher accident rates.

**Table 7**  
**Correlation Between Factors Influencing Employer Health and Safety Decisionmaking and the Accident Rate in 1982**  
**(Pearson Product Moment Correlation Coefficients)**

Influence	Accident rate in 1982
National unions	.55**
Plant unions	.09
Employee concerns	.0
Employee turnover	.29*
Other firms	.14
Accident compensation	.33**
Government rules and regulations	-.39**
Other structural variables:	
Locus of ownership	-.34**
Responsibility level	-.25*

\* $p < .10$   
 \*\* $p < .05$

As an internal influencing factor, employee turnover ( $r = .29$   $p < .10$ ) was positively correlated with the accident rate in 1982. In other words, the greater the influence of employee turnover, the higher was the accident level and *vice versa*. Other organizational structural variables which were significantly correlated with the level of accidents in 1982 included the locus of ownership and the position level of the person given primary responsibility for health and safety. The locus of ownership variable revealed that New Zealand organizations were more likely than foreign-owned organizations to have accidents ( $r = -.34$   $p < .05$ ). The position level of the individual primarily responsible for health and safety also indicated that for the organizations sampled, the higher this assignment, the higher the number of accidents ( $r = -.25$   $p < .10$ ).

### Conclusion

Accident compensation legislation does not always result in intended consequences. Survey research conducted in 38 organizations shows that the New Zealand Accident Compensation Act is not, in and of itself, perceived as a major influence on employers' health and safety decisionmaking. Government rules and regulations are a major influence, however, along with employee concerns and demands and the plant union.

The impact of the accident compensation legislation is evident in employers' assessments of resultant employee behavior and their own subsequent cost-benefit analyses of health and safety expenditures within the organization. Employers reported that they believe more accidents are now reported as a result of accident compensation ( $X = 5.31$  on a 7-point scale) and that the existence of accident compensation prolongs the absence of injured workers ( $X = 5.00$  on a 7-point scale). The employer's overall assessment of the costs

and benefits of health and safety activities within their organization was significantly correlated with the employers' beliefs about the number of accidents reported, but not with the employers' beliefs about extended absences. This finding supports the notion that the overall benefits derived from comprehensive compensation provisions outweigh the cost. Despite the belief that more accidents may be reported, employers felt that their expenditures in the health and safety area (including the first week compensation requirement) are offset by lower accident rates.

Further evidence of the impact of accident compensation legislation is found in the significant correlation between the influence of this legislation and the level of accidents in the firm. Government rules and regulations and national unions were also significantly related to the number of accidents reported in 1982.

The policy implications of the findings reported here are that government agencies and the Accident Compensation Corporation may be able to strengthen their influence on health and safety in the firm even further, through increased cooperation with the unions. The data show that this effort would be best directed toward the individual plant union organization rather than the national federations. The findings further indicate that efforts to help employers address employee concerns should also prove useful. Across all industries, employers reported a high level of influence exerted by perceived employee concerns and demands. An example of such an involvement would be facilitating policy formulation, such as the New Zealand Employers Federation policy statement on health and safety in the workplace adopted in 1983 ("NZEFA Adopts Policy" 1983).

From the employer's perspective, the finding that the stronger the union influence on health and safety decision-making the more likely the employer reported that the



benefits outweighed the costs in health and safety administration, suggests that employers may also find it useful to strengthen the union's role in this area. A second recommendation, which fits with working more closely with the workers, is to place management responsibility for health and safety administration at lower levels within the organization. This suggestion flows from the finding that the higher the assignment of responsibility for health and safety within the organization, the higher the level of accidents. A third recommendation is that employers may find it useful to work with other firms on resolving health and safety problems. The majority of firms reported that they believed that they placed more emphasis on health and safety than did other firms. This suggests that organizations may be able to learn from one another. The unions may also be able to provide a mechanism for this linkage.

## NOTES

1. Under Part 1 of the Social Security Act of 1964, injured persons able to qualify under the relevant means test had modest monetary benefits, and all New Zealand residents normally had access to medical, hospital and other related benefits under Part 2 of the Act (Fahy 1982).
2. The Woodhouse Report characterized the adversarial fault system as being cumbersome, erratic, and extravagant in operation. The negligence action was labeled a lottery producing an adequate indemnity for only a relatively small group of injured persons.
3. Prior to the revisions effective in the Accident Compensation Act 1982, the Earners' Fund was charged with all amounts on claims where workers suffered injury in motor vehicle accidents in New Zealand arising out of and in the course of the injured person's employment. Now all compensation resulting from motor vehicle accidents is financed through levies on vehicle owners.
4. New Zealand dollars are reported. The NZ/US exchange rate was approximately \$.64 (NZ) per \$1.00 (US) as of April 1984.

5. For the individual, the legislation stipulates that the earnings related compensation for all periods of incapacity extending beyond the first week is calculated by reference to the amount of "relevant earnings" (ACA & 104). In December 1978, the limit on relevant earnings determined under S. 104 was removed, however. Instead a limit was placed on the amount of weekly compensation paid. In December 1981, the maximum amount of earnings-related compensation was increased from \$288 per week to \$600 per week. The ACC may at its discretion fix a minimum amount of earnings for the self-employed, and for the period March 1983 to March 1984 this minimum was set at \$12,324 or \$237/week. Earnings-related compensation may in general be paid until a claimant reaches the age of 65 years, but where the injured earner is over 60 special provisions apply.

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