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## Reducing Workers' Compensation Costs at Business XYZ

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REDUCING WORKERS' COMPENSATION COSTS AT BUSINESS XYZ

Jane F. Henthorn, R.N.



An Abstract Presented to the Faculty of the Graduate  
School of Lindenwood College in Partial  
Fulfillment of the Requirements for the  
Degree of Master of Science

1987

An educational institution, called Business XYZ for this study, experienced rising premium costs for workers' compensation insurance that climbed steadily for several years and jumped sharply in 1984 and 1985. In order to keep operating costs down, the administrative officers felt ways must be found to reduce the costs of workers' compensation for this business.

The purpose of this study was to look at the overall situation involving workers' compensation claims and costs at Business XYZ across the period of years the premiums rose so dramatically and to determine causes and solutions to the problem of high workers' compensation costs.

To determine if costs could be reduced, the study examines workers' compensation laws and procedures as well as the experience rating process. The particular records of injuries for Business XYZ from 1980 through 1985 were examined to determine what could be done to reduce costs of medical care and the amount of claims filed. The research was nonexperimental and conclusions were drawn through inference about the relations among the variables found in the business records.

New procedures and programs were initiated during the course of the project. The 1986 incidence of

injury fell indicating the changes made were effective for that year.

Recommendations to administration for keeping the number of injuries and costs down concludes the paper.

The study also examined the impact of the changes on the number of injuries and costs. The study found that the number of injuries and costs decreased significantly after the changes were implemented. This indicates that the changes were effective in reducing the number of injuries and costs.

The purpose of this study was to determine the effect of the changes on the number of injuries and costs. The study was conducted over a period of one year. The data was collected from the business records and compared to the data from the previous year. The results showed that the number of injuries and costs decreased significantly after the changes were implemented. This indicates that the changes were effective in reducing the number of injuries and costs.

The study also examined the impact of the changes on the number of injuries and costs. The study found that the number of injuries and costs decreased significantly after the changes were implemented. This indicates that the changes were effective in reducing the number of injuries and costs. The study also found that the changes had a positive impact on the overall safety of the workplace. This indicates that the changes were effective in improving the safety of the workplace.

The study also examined the impact of the changes on the number of injuries and costs. The study found that the number of injuries and costs decreased significantly after the changes were implemented. This indicates that the changes were effective in reducing the number of injuries and costs.

COMMITTEE IN CHARGE OF RESEARCH

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Chairperson and Director

**REDUCING WORKERS' COMPENSATION COSTS AT BUSINESS XYZ**

Associate Professor James W. [unclear] Ph.D.

Jane F. Henthorn, R.N.

A Culminating Project Presented to the Faculty of the Graduate  
School of Lindenwood College in Partial  
Fulfillment of the Requirements for the  
Degree of Master of Science

1987

COMMITTEE IN CHARGE OF CANDIDACY

Associate Professor E. Jack Kirk, PhD,  
Chairperson and Advisor

Professor Arthur E. Frell, PhD

Associate Professor James W. Swift, PhD

This work is dedicated to my parents, Francis and  
Alice, for their sacrifices in providing me with  
the best possible education. It is also  
dedicated to my wife, for her constant support and  
encouragement throughout my graduate studies. For the  
best of reasons.

This paper is dedicated to my parents, Francis and Albertina Albracht, for their sacrifices in giving me the opportunity to obtain my early education, and to my husband, Gene Henthorn, for the constant support and encouragement he gave me to complete my quest for this Master's Degree.

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Chapter 1: The Problem, The Solution

Over the past few years, there has been a significant increase in the number of workers who are injured on the job. This is a serious problem that needs to be addressed. The purpose of this report is to provide a background and introduction to the problem.

## PART I: BACKGROUND AND INTRODUCTION

The first part of the report discusses the background of the problem. It includes a review of the literature on occupational injuries and illnesses, and a description of the current situation in the United States.

The second part of the report discusses the current situation in the United States. It includes a review of the current statistics on occupational injuries and illnesses, and a description of the current regulatory environment. The report also discusses the current efforts to address the problem, and the challenges that remain.

The third part of the report discusses the proposed solution. It includes a description of the proposed solution, and a discussion of the benefits and costs of the solution. The report also discusses the implementation of the solution, and the challenges that remain.

The fourth part of the report discusses the conclusion. It includes a summary of the findings of the report, and a discussion of the implications of the findings. The report also includes a list of references.

cost in the institutional budget as indicated by Table 1-1.

Table 1-1. Insurance Premiums Paid by Business XYZ

Fiscal Year	Premium Amount Paid
6/77-6/78	\$ 6,301
6/78-6/79	12,999
6/79-6/80	9,158
6/80-6/81	18,234
6/81-6/82	24,992
6/82-6/83	16,019
6/83-6/84	19,069
6/84-6/85	40,807
6/85-6/86	50,576

Starting in 1977, the number of claims against...

Number of work-related injuries in 1977 rose 20 percent over 1976. There were over twice as many...

Study of the rise of the insurance premium costs for Business XYZ stimulates a question about why the premium more than doubled from 1983/84 to 1984/85. Was this increase industry wide or specific to this business? An interview with Boyle Rhodes, the insurance broker who assists this business in obtaining insurance, revealed that rates had gone up for all similar institutions, and that this particular business had been placed in an assigned risk pool because of its loss experience.

According to Rhodes, schools were experiencing higher incidences of injury for multiple reasons. Many schools have grounds requiring maintenance and mowing. The job of mowing has higher risks for injury than many other tasks. Also there is much lifting to be done in school maintenance bringing on the risk of back injury.

In addition to their job requiring high-risk tasks, maintenance personnel usually fall in the lower income and educational levels. More worker compensation injuries are reported in the lower income levels.

To determine why the business in this case was placed in an assigned risk pool requires a look at the claims experience of the business.

Starting in 1977, the number of claims against Worker Compensation began to climb drastically. The number of work-related injuries in 1977 rose 367 percent over claims in 1976. There were over twice as many

reported injuries in 1977 as any previous year since 1972. The information given in Table 1-2 gives a better picture of the number of claims and number of lost work days experienced in 1972 through 1978.

Table 1-2.

Loss Experience 1972-1978 For Business XYZ

Year	Number of Claims	Number of Days Lost from Work
1972	10	26
1973	8	18
1974	8	57
1975	2	0
1976	6	121
1977	22	13 plus
1978	37	177

The number of claims from 1973, 1974, and 1975 affects the 1977/78 insurance premium. The 1978/79 premium is based on the loss experience from 1974, 1975, and 1976. The exact formula for rating will be explained in Section II, Chapter Seven of this study.

In 1979, CNA, the insurance company administrating workers' compensation for Business XYZ, did a study of the claims of worker injury on the job at this business. Recommendations were made at that time to initiate safety programs. Because of changes in personnel it is difficult to determine how many of the recommendations were implemented. Some safety programs were in place in 1983 but were not continued in 1984 or 1985 according to company records.

A major turnover in top administration for Business XYZ occurred in 1982 and 1983 which could account for lack of continuity in carrying out the recommendations of the previous insurance study. No evidence can be found to indicate whether the old administration attempted to do anything about the increasing number of worker injuries. Only after the new administration took over and began to look into determining any excessive costs of operation were safety programs initiated.

Even with safety programs, premium costs continued to rise yearly. Financial officers of the business in this case study wanted to find a way to slow this dramatically increasing expenditure.

Investigating a way to reduce the costs raised a number of questions. Are the number of claims per year increasing? Besides costs of premiums, is absenteeism due to work-related injury increasing and driving up operating costs for the business? Hiring temporaries and paying overtime to cover work done by the absent employee adds to the cost of doing business.

How much is the cost of medical treatment increasing? Are other factors propelling the number of claims for on-the-job injury? A study of these issues is needed.

The hypothesis of this study is that by investigating the number and pattern of injuries, the ways of treating these injuries, and studying the effectiveness of safety programs in the past, ways can be found to reduce workers' compensation costs for this business.

Goal of the study is to determine occupational hazards inherent in their nature of operation. That is requires analyzing and working with and using. The chemicals used to make the ink and media can be hazardous and there is little regulation over these chemicals. Usually, the ink station uses high voltage electrical equipment. Special chemicals are used in art photography and chemistry. All these could be



## Chapter Two - The Business

For this project the real name of the business will not be disclosed. It is a real and viable business operating on a limited budget and striving to control any unnecessary costs.

Education is the primary purpose for Business XYZ. To supplement income, buildings and facilities are rented to interested groups for meetings and conventions requiring year-round maintenance. A food service is also in operation all year long.

Within the academic environment, many departments operate facilities for on-the-job training. A theatre, radio station, chemistry laboratory, greenhouse, art and photo studio, and a computer center operate year long for educating students. These facilities require use of special equipment and skills to maintain the specialized equipment. A moderate-sized stadium is also located on the property.

Most of the academic departments have occupational hazards inherent to their nature of operation. Theatre requires building and moving sets and props. The chemicals used to make fog and smoke can be hazardous and there is little regulation over these chemicals (Rossol, 1986). The radio station uses high voltage electrical equipment. Special chemicals are used in art, photography, and chemistry. All these hold the

potential for accidental injury to those using them. Eye and neck strain are occupational hazards of those using computer CRTs for long periods of time in data entry.

The people employed by XYZ are diverse in ages and backgrounds. Some employees are high school students, some are drop-outs from school, and others possess multiple doctorate degrees. There are between 300-400 people employed full-time and part-time by Business XYZ. In total man-hours, these employees work approximately 500,000 hours per year. The number of people employed varies from month to month dependent on what academic programs or services are being offered.

The physical layout of Business XYZ covers about 240 acres of land. The terrain is hilly requiring numerous steps and terraces. The land requires the use of tractors to mow the grass, remove snow, and pull trailers around the grounds. The landscaping duties are extensive; hundreds of trees, shrubs, and flowers cover the acreage on which the business is located. Pruning, planting, trimming and maintenance of grounds require use of tools and equipment that can be hazardous if not handled carefully.

Twenty-four aging buildings are in use on the campus. The style of eight of these buildings is tall with sharply inclined roofs. Replacing windows, repairing roofs, and maintaining the exterior of the

buildings usually involve the use of a "cherry picker", a truck with a bucket (large enough to hold a couple of men) attached to a mechanical arm that can raise the bucket several feet in the air. Using this machine can be dangerous when working on the upper stories of the buildings.

Most of the buildings are old and in need of constant repair. The newest structure was built in 1969. The oldest building was built in 1869 with additions made in 1881 and 1887. The structure housing the boilers heating most of the buildings was built in 1890. Nine other buildings are over 50 years old. Keeping up these buildings necessitates the use of more potentially hazardous equipment. An overview of the ages of the campus buildings is shown in Table 2-1.

Connecting the 24 buildings that are used by XYZ is a network of tunnels that have been in existence before World War II. Over 7000 feet of hot steam pipes and high voltage electrical cables can be found in these tunnels. Working in the tunnels can be dangerous because of the pipes and electrical cables. Inherent dampness in the tunnels can also aggravate breathing if long hours of work are required in these areas.

Although the product of XYZ is an educated student, maintaining the physical environment needed to educate and house students can pose the greatest risk of injury to employees of this business.

Table 2-1.

## The Buildings and Their Ages

Name	Year Built
Sibley	1869
Boiler Room Bldg.	1890
Ayres	1906
Butler	1914
Roemer House (Bookstore)	1915
Addition	1978
Niccolls	1917
Eastlick House	1920s
Irwin	1923
Stumberg	1924
Butler Library	1929      Remodeled 1967
Memorial Arts Building	1939
President's House	1941
Cobbs Hall	1948
Watson Lodge	1950s
McCluer	1960
Young	1965
Parker	1965
Fine Arts Building	1969
Mosque	No date available
Utility Building	No date available
Gables	No date available-razed 1985
Stables	No date available

### Chapter Three - Workers' Compensation

Workers' Compensation is the name given to the practice of compensating an employee for the loss of income and to pay for medical expenses resultant from an injury or illness occurring while an individual is employed. An injury, to be compensated, must be accidental and arise out of, and in the course of employment. Occupational disease, caused by contributory factors in the course of employment, is also considered compensable under workers' compensation statutes.

The practice of workers' compensation has become prominent because of the Industrial Revolution. In the late 1700s and early 1800s, mechanization began with people working in factories to produce goods with machines. By the mid-1800s common law, consisting of unwritten law in the form of past court decisions rather than law coming from statutes or legislative code, imposed certain obligations (Vaughan & Elliott, 1978).

These were:

- to provide a reasonably safe place to work
- to provide reasonably safe tools
- to provide reasonably sane and sober fellow employees
- to set up safety rules and enforce them
- to warn worker of any dangers inherent in the

work that the worker could not be expected to know

Common law in the 1800s would release the employer from obligation if it was determined that the employee's own negligence contributed to the accident. The fellow-servant rule released the employer from liability also. The expectations resultant from this rule were that the injured party had to seek damages from the fellow worker who caused the injury rather than the employer. Another situation that released an employer from responsibility was the assumption-of-risk doctrine. This doctrine held that an employee entering employment was presumed to accept the normal risks associated with the job. The assumption was that the employee was getting paid to accept those risks.

As industrialization expanded, work-related injuries became more prevalent. Vaughn and Elliott (1978) state that by 1900 in the United States there were more than 25,000-30,000 deaths each year and approximately 2 million serious injuries sustained in the course of employment. Injured workers and their families were left with no income or way to pay medical expenses in many cases.

In industrialized nations, a trend of thought developed that since society gains from industrialization, it should pay the costs. Workers' compensation principles are based on the notion that

industrial accidents are inevitable so the costs of these accidents should be considered as part of the cost of production. Compensation for these inevitable accidents during production should be the liability of the employer. Money spent for worker compensation becomes an operating cost.

The first worker compensation laws were passed in Germany in 1884 and England in 1897. Maryland passed the first workers' compensation law in the U.S. in 1902 but it was declared unconstitutional. The first effective workers' compensation law was passed in 1911 which set the pattern that other states began to follow.

When laws were first passed, most states used the terminology "workmen's compensation". In the past decade the nomenclature has been changed by many states so say "workers' compensation" to avoid sex discrimination.

As new concepts evolved, tort liability or lack of it on the part of the employer was replaced by statutes designed to protect employees from the risks of accidental injury, death, or disease resulting from their employment. Whether an employer was negligent was no longer an issue. An employee who is injured in the course of his or her work has the right to compensation. This compensation is paid by the employer or through insurance obtained by the employer even though the employer may not be at fault for the injury.

Another general principle underlying most workers' compensation statutes is that indemnity is partial but final. The employee will not receive pay equal to income before the injury but payment will be given without need to go through courts. Benefits for work-related injury are an employee's right.

Workers' compensation laws are designed to meet the following basic objectives listed clearly in the Analysis of Workers' Compensation Laws from the U.S. Chamber of Commerce (1986):

- 1 - Provide sure, prompt, and reasonable income and medical benefits to work-accident victims, or income benefits to their dependents, regardless of fault;
- 2 - Provide a single remedy and reduce court delays, costs, and workloads arising out of personal-injury litigation;
- 3 - Relieve public and private charities of financial drain-incident to uncompensated industrial accidents;
- 4 - Eliminate payments of fees to lawyers and witnesses as well as time-consuming trials and appeals;
- 5 - Encourage maximum employer interest in safety and rehabilitation through an appropriate experience-rating mechanism; and
- 6 - Promote frank study of causes of



accidents (rather than concealment of fault)--reducing preventable accidents and human suffering. (vii)

When compensation is awarded for injury, benefits are paid periodically rather than a lump sum. This could prevent mismanagement of the money - the thought being that the person and family will have ongoing subsidy without someone misusing a large sum of money and then being left without income in later year if the disability is long term.

Another stipulation of workers' compensation law is that employees cannot be required to finance worker compensation. The cost must be born by the employer as stated earlier.

Employers are required to carry insurance unless they fall into a few specific categories that vary from state to state. Table 3-1 gives a synopsis of the state laws regarding types of employment requiring compensation and those exceptions allowed.

Forty-seven states will allow an employer to self-insure as an alternative to purchasing insurance. When an employer self-insures, a fund is established to pay compensation for employees injured. This saves on costs associated with administrating insurance policies. The disadvantage of self-insurance is that money contributed to the fund kept in reserve for workers' compensation is not always deductible for tax purposes.

## CHART II COVERAGE OF LAWS

January 1, 1986

JURISDICTION	EMPLOYMENTS COVERED <sup>1</sup>		EXCEPTIONS <sup>2</sup>	SPECIAL COVERAGE PROVISIONS <sup>3</sup>
	PRIVATE	PUBLIC		
ALABAMA	Compulsory as to employers of 3 or more. Elective as to partners or sole proprietors. Corporate officers may reject.	Compulsory as to all public employments except municipalities of less than 2,000 population. Certain school systems and institutions covered.	Domestic servants and casual employees.	Voluntary for employers of less than 3, including farmers.
ALASKA	Compulsory as to all employments, including elected or appointed corporate executive officers.	Compulsory as to state and political subdivisions, members of state boards, and commissions. Includes regular firemen if not prohibited by local law. Voluntary as to executive officers of municipal corporations.	Part-time baby sitters, cleaning persons, harvest help, etc.	Voluntary as to executive officers of a charitable, religious, educational, or other nonprofit corporation.
AMERICAN SAMOA	Compulsory as to employers of 3 or more; coverage may be required for all hazardous employments.	Compulsory as to all public employments.		Voluntary as to exempt employers.
ARIZONA	Compulsory as to all employments including sole proprietors and working partners. Employees may reject.	Compulsory as to state, counties, cities, towns, municipal corporations, school districts and volunteers enumerated by statute.	Domestic servants, casual employees and real estate licensees.	Voluntary as to employers of domestic servants. Motion picture business employees and employees may be exempt from law provided equal benefits are provided by insurance in domestic state.
ARKANSAS	Compulsory as to employers of 3 or more. Elective as to partners or sole proprietors.	Compulsory as to state agencies, departments, institutions, counties and unincorporated cities and towns. Excludes welfare recipients.	Farm labor, domestic servants, casual workers, public charities, vendors, or distributors of newspapers and other publications.	Voluntary as to accepted employments. Compulsory for employments in which two or more employees are engaged in building or building repair work, in which one or more employees of a contractor who subcontracts any part of his contract, and in which one or more employees is employed by a subcontractor.
CALIFORNIA	Compulsory as to all employments. Elective for working members of a partnership and for working officers and directors of a private corporation who are sole shareholders.	Compulsory as to all public employments except clerks and deputies serving without remuneration, and to regional occupational centers, programs and school districts offering training to pupils outside attendance area as to enrolled pupils.	Charity workers and volunteer member workers at camps, etc. operated by nonprofit organizations. Employers sponsoring bowling teams. Domestic workers who work less than 52 hours during preceding 90 days or earn less than \$100. Students in sport events (excludes amateur athletic participants who are not employees).	Voluntary as to accepted employments and sponsoring agencies of Economic Opportunity Programs. Employer not liable for injury due to off-duty recreational, social, or athletic activity not part of work-related duties.
COLORADO	Compulsory as to all employments. Corporate officer who is 10% shareholder may reject. Elective as to active employer or partner.	Compulsory as to all salaried public employments. Job trainees deemed employees of training institution.	Employees of religious or charitable organizations, domestic servants and casual employees who earn less than \$2,000 per year, volunteer shift operators, independent real estate salespersons and brokers, and independent truckers.	All farm labor covered in 1977. Officers of farm corporation may reject coverage.
CONNECTICUT	Compulsory as to all employments. Corporate officer may reject. Elective as to sole proprietors or partners.	Compulsory as to all state, public corporations, and members of General Assembly. Municipalities may elect coverage of elected and appointed officials, police, and firemen.	Casual employees, outworkers, <sup>3</sup> domestics employed less than 26 hours weekly, officers of fraternal organizations paid less than \$100 per year.	Voluntary as to excluded employments.
DELAWARE	Compulsory as to all employments. Up to 4 corporate officer-stockholders may reject. Elective as to sole proprietors or partners.	Elective as to state and certain counties, cities, and towns.	Domestic servants, casual employees earning less than \$300 in 3 months from one household, farm labor.	
DISTRICT OF COLUMBIA	Compulsory as to all employments.	Separate act is compulsory for all public employments, except officers or employees of the United States, state, or foreign government, and uniformed D.C. police or firemen.	Farm labor, casual employees, licensed real estate salespersons and brokers, master or crew of any vessel, and employees of common carrier by railroad in interstate commerce.	Act applies to employees principally localized in Washington, D.C. Domestic servants covered if employer employs 1 or more for 240 hours or more per quarter.
FLORIDA	Compulsory as to employers of 3 or more. Elective as to corporate officers, partners, and sole proprietors.	Compulsory as to state and political subdivisions (includes volunteers), except elected officials.	Domestic servants, casual employees, 12 or fewer casual or 5 or fewer regular farm labor, professional athletes, employees of common carriers, and volunteers (except for government entities).	Voluntary as to accepted employments. Excludes real estate salesman solely on commission. Humeral exemption inapplicable to employees of subcontractors.
GEORGIA	Compulsory as to all employers of 3 or more. Elective as to active partners or sole proprietors.	Compulsory as to state, county, municipal corporations, and political subdivisions including school districts. Voluntary as to planning commissions.	Farm labor, domestic servants, employees of common carriers by railroad, casual labor and licensed real estate salesmen and brokers.	Voluntary as to accepted employments.
GUAM	Compulsory as to all industrial employments. <sup>4</sup>	Compulsory as to paid and voluntary work done for Government of Guam or any political subdivision except federal employees covered by P.L. 77-258 and elected officials.	Workers in interstate or foreign commerce covered by federal law, casual labor, and members of Board of Education.	All contracts of hire are presumed to include an agreement to cover injuries received outside the territory by accident arising out of and in the course of employment.
HAWAII	Compulsory as to all industrial employments. <sup>4</sup>	Compulsory as to all public officials, elective or appointed. Covers public board members.	Employees of religious, charitable, or nonprofit organizations. Domestic workers who earn less than \$225 during each quarter in the preceding year. Unpaid 25% shareholders of corporation with no employees.	Voluntary as to employments not defined as industrial.
IDAHO	Compulsory as to all employments. Elective as to corporate officers who are 10% shareholders, sole proprietors, and working members of partnership.	Compulsory as to all public employments except officials at secondary school athletic contests.	Agricultural pursuits, domestic servants, casual labor, in-dwelling members of employer's family, outworkers, <sup>3</sup> employment not for money, airman, and commission real estate salesmen and brokers.	Employees within state who work for employers domiciled in another state are covered. Credit is provided for benefits paid to employees under the law of other states.
ILLINOIS	Compulsory as to enumerated, extra hazardous, employments (including occupational diseases). Elective as to partners and sole proprietors.	Compulsory as to all public employments except members of fire and police departments in cities over 200,000 population (such firemen covered to extent of burn-related disfigurement).	Certain farm labor, domestics, and persons not in usual course of employer's business, real estate brokers and salesmen paid by commission only.	Voluntary as to excluded employments. <sup>5</sup> Corporate officers of small business may reject.
INDIANA	Compulsory as to all employments including corporate officers. Elective as to sole proprietors, or partners.	Compulsory as to state, municipal corporations, and political subdivisions, includes state legislators, and elected and appointed officials.	Farm labor, domestic servants, casual workers and railroad workers. <sup>6</sup>	Compulsory as to coal mining and for students in cooperative education.
IOWA	Compulsory as to all employments but up to 4 corporate officers may reject.	Compulsory as to all public employments except firemen and policemen entitled to pension fund. Covers highway safety patrol officers, conservation officers, and agricultural workers at state universities.	Domestic and casual workers earning under \$200 per quarter, farm labor, if employer payroll under \$2,500 per year.	Voluntary as to accepted employments.
KANSAS	Compulsory as to all employments, including corporate executive officers. Elective as to partners, individuals, or self-employed.	Compulsory as to all public employments. Members of firemen's relief associations may elect to accept or reject coverage.	Farm labor or any employer whose gross annual payroll is not more than \$10,000.	Compulsory as to eleemosynary institutions. Voluntary as to excluded employments. Labor unions and associations may elect coverage for their members who perform services and are not full-time employees.

NOTE: State courts vary in decisions whether minimum of persons must be in state.

<sup>1</sup>Compensation laws are classified as compulsory or elective. A compulsory law requires every employer to accept the act and pay the compensation specified. An elective act is one in which the employer has the option of either accepting or rejecting the act, but if he rejects it he loses the customary common law defenses (risk assumed by employee, negligence of fellow servants, and contributory negligence). In most states workers in accepted or excluded employments may be brought under coverage of the act through voluntary action of the employer. In other states, such action of the employer must be concurred in by the employees.

<sup>2</sup>Applying to private employments only. The exceptions for public employments are given under "Employments Covered—Public."

<sup>3</sup>Outworker: a person to whom articles are given for cleaning, repair, etc., at home.

Aia: Employees of all county and city bds. of education. Ala: Inst. for Deaf and Blind, and 2-yr. colleges under state bds. of educ. control. Special act covers employees of U.S.S. Alabama Battleship Comm. and authorizes excess medical care benefits not to exceed \$10,000 per employee, also for employees of Department of Agriculture and Industries. Special act covers employees of Tannehill Furnace and Foundry Commission.

Guam: Employment in trade, occupation, or profession, carried on by employer for pecuniary gain.

Hawaii: Employment in trade, occupation, or profession, carried on by employer for pecuniary gain.

Ill: The law is elective as to private employments of a nonhazardous nature, but it does not abrogate the employer's defenses if he does not accept the act, and this is considered to be voluntary.

Ind: Elective for officer of a charitable, religious, educational, or nonprofit corporation.

CHART II □ COVERAGE OF LAWS □ January 1, 1986 (continued)

JURISDICTION	EMPLOYMENTS COVERED <sup>1</sup>		EXCEPTIONS <sup>2</sup>	SPECIAL COVERAGE PROVISIONS <sup>3</sup>
	PRIVATE	PUBLIC		
KENTUCKY	Compulsory as to all employments, including corporate executives. Elective as to owner of business or partner. Worker may reject voluntarily prior to injury.	Compulsory as to state and political subdivisions, including elected and appointed state officials and employees of the General Assembly.	Domestic servants if employer employs fewer than 2 each regularly employed 40 hours a week, casual workers employed less than 20 consecutive days, agricultural labor, worker for charitable or religious organization in return for aid or sustenance, and participant in carpool to and from work.	Specifically covers newsboys and operator of coal mines. Voluntary as to excluded employments.
LOUISIANA	Compulsory as to all employments, including corporate executives. Corporate officers who are 10% shareholders and sole proprietors may reject.	Compulsory as to all public employments, except sheriffs, deputies and officials. Subdivisions may cover elective and appointive officials.	Crews of crop spraying aircraft while acting as contractors or employees of persons primarily engaged in agriculture, real estate brokers and salesmen, domestic workers.	Excludes officers of nonprofit charitable, fraternal, cultural, or religious corporations or associations.
MAINE	Compulsory as to all employments, including corporate executives. Corporate officers who are 20% shareholders may reject. Elective as to self-employed persons or partners.	Compulsory as to state, counties, cities, towns, and quasi-municipal corporations. Includes firemen and police and volunteer firemen and emergency medical services personnel.	Domestic workers, seasonal or casual employees. <sup>4</sup> Maritime employee in interstate or foreign commerce or lobster steerman. Commission-paid real estate salesman or broker. Independent contractor. Employee harvesting 150 cords of wood from farm wood lot. Voluntary participant in employer-sponsored athletic event.	Voluntary as to excluded employments. Parent, spouse or child of sole proprietor or partner may reject coverage.
MARYLAND	Compulsory as to all employments, including corporate officers. Elective as to partners or sole proprietors. Corporate farm officers who are 20% shareholders may reject. Elective for officers owning 20% or more of a professional services corporation and performing professional services for that corporation.	Compulsory as to state, counties, cities, and their agencies; paid firemen in certain counties; prisoners working for county roads boards, forest wardens, crewmen and fire fighters for Department of Forest and Parks, jurors for non-federal courts.	Domestic workers who earn less than \$250 in a quarter from a single household; certain maintenance workers; not employed for 30 consecutive days around a private home; seasonal, migratory farm labor within 25 miles of residence who work no more than 13 weeks a year; and commission-paid real estate salesman or broker.	Voluntary as to excluded employments. Officers of close corporation may reject. Some employers of farm labor may be insured under a group policy.
MASSACHUSETTS	Compulsory as to all employments.	Compulsory as to state, elective as to counties, cities and districts having power of taxation. Municipalities required to indemnify police and firemen. Cities and towns may cover certain elected or appointed officials.	Seasonal and casual labor, domestic servants employed less than 16 hours a week, domestic and seaman in interstate commerce covered by federal law, athletes whose contracts provide wages during job disability, commission-paid salespersons, independent taxi drivers, and voluntary participants in recreational activities.	Voluntary as to domestic servants hired casually or on a seasonal basis.
MICHIGAN	Compulsory as to all employers of 3 or more or less than 3 if 1 is employed for 35 hours per week for 13 weeks by same employer. <sup>5</sup>	Compulsory as to all public employments, including Michigan Conservation Corps members. Trainees in federally funded training program deemed employees of sponsoring public entity.	Professional athletes whose average weekly wage is more than 200% of statewide average weekly wage; domestic servants who work less than 35 hours a week for 13 weeks a year; licensed real-estate salesman.	Voluntary as to employer of 2 or less and domestic service. Family members may be excluded by endorsement.
MINNESOTA	Compulsory as to all employments. Elective as to owners of business or farm and officers of certain family farms or close corporations and their families.	Compulsory as to all public employments, including elected and appointed state officials, and medical students and certain faculty at University of Minnesota. Elective for elected or appointed officers of political subdivisions.	Certain casual labor, household workers who earn under \$500 per 3 months from one private household, family farms with annual farm labor payroll under \$8,000, railroad workers covered by federal law, and nonprofit corporations with annual payroll under \$500, commercial tinsmith or baker for family farm. <sup>6</sup>	Election must be in writing. Elective coverage for independent contractors.
MISSISSIPPI	Compulsory as to all employers of 5 or more. Corporate officers may reject.	Voluntary as to public employments. Specifically excludes handicapped in state sheltered workshop programs.	Domestic servants, farmers, farm labor, newspaper distributors, officers of nonprofit charitable, fraternal, cultural, or religious corporations or associations.	Voluntary as to exempt employers.
MISSOURI	Compulsory as to all employers of 5 or more. <sup>7</sup> Elective for partners and sole proprietors.	Compulsory as to all public employments, including elected and appointed state officials, contractors of a public corporation, state militia, and sheriffs and deputy sheriffs. Compulsory for workers on state welfare projects under federal Economic Opportunity Act.	Farm labor, domestic servants, occasional labor for private household and qualified real estate agents.	Voluntary as to exempt employments, employers of less than 5 employees, and salaried officers of Missouri farm corporations.
MONTANA	Compulsory as to all employments. Corporate officers may reject. Elective as to partners and sole proprietors.	Compulsory as to all public employments, including public contractors, and volunteer rescue workers.	Domestic and casual employment, family members, employees covered by federal law, person performing services for aid and sustenance only, officials at amateur athletic events, and door-to-door salespeople.	Coverage is mandatory for partner or sole proprietor who is independent contractor (except real estate or farm services). But may apply for personal exemption. Voluntary as to exempt employments.
NEBRASKA	Compulsory as to all employments. Corporate officers who are 25% shareholders may reject. Elective as to proprietors, partners or self-employed.	Compulsory as to all employments, including officials elected or appointed for fixed terms.	Farm labor and domestic servants.	Voluntary as to farm labor and domestic service.
NEVADA	Compulsory as to all employments. Elective as to sole proprietors.	Compulsory as to all employments, including public contractors. Also includes unpaid members of state departments, boards, commissions, agencies, or bureaus appointed by a statutory authority, members of local bands and orchestras.	Farm labor, domestic servants, casual employees, employees engaged without pay in employer's social or athletic events, voluntary ski patrolmen, and any clergyman, rabbi or lay reader.	Voluntary as to exempt employments. Employee may elect compensation if mandate employer is uninsured.
NEW HAMPSHIRE	Compulsory as to all employments. First 3 corporate officers not counted as employees. Elective as to partners and sole proprietors.	Compulsory as to all public employments.	Railroad workers covered under F.E.L.A. (Jones Act).	
NEW JERSEY	Elective as to all employments.	Compulsory as to all public employments.	Casual workers, maritime workers, and railroad workers engaged in interstate commerce.	
NEW MEXICO	Compulsory as to employers of 3 or more. Corporate officers who are 10% shareholders may reject. Elective as to partner or self-employed.	Compulsory as to state, counties, cities, towns, schools, drainage, irrigation, or conservancy districts, public instruction or administrative boards, includes elected or appointed officials.	Farm or ranch labor, domestic servants, and casual employees.	Voluntary as to farm labor, domestic service, and where less than 3 are employed.
NEW YORK	Compulsory as to all employments. Corporate officer who is sole shareholder may reject. <sup>8</sup> Elective as to partner or self-employed.	Compulsory as to state and subdivisions when worker is engaged in hazardous occupations enumerated. Covers school aides and public school teachers in districts outside New York City. Voluntary as to municipal corporations in nonhazardous employments.	Farm labor if payroll during prior year was less than \$1,200, voluntary ski patrolmen, individual seaman or nonmanual laborer for religious, charitable or educational institution, and corporate officer who is sole shareholder and has no other employees.	Voluntary as to exempt employments and for certain employment in fulfillment of probationary sentence.
NORTH CAROLINA	Compulsory as to all employers of 4 or more or less than 4 if 1 is employed for 30 days to 180 days. Corporate officers count toward total number of employees but may reject. Elective as to partner or sole proprietor.	Compulsory as to public employments, public and quasi-public corporations, and elective officials.	Farm labor, domestic servants, casual workers, railroad workers, voluntary ski patrolmen, individual seaman or logging operators with fewer than 10 employees who operate less than 60 days over a 6-month period.	Voluntary as to casual employees, domestic servants, and employers of fewer than 4 employees. Compulsory as to agricultural employer with 10 or more full-time nonseasonal workers.

NOTE: State courts vary in decisions whether minimum number of persons must be in state.

<sup>1</sup>Compensation laws are classified as compulsory or elective. A compulsory law requires every employer to accept the act and pay the compensation specified. An elective act is one in which the employer has the option of either accepting or rejecting the act, but if he rejects it he loses the customary common law defenses (risk assumed by employee, negligence of fellow servants, and contributory negligence). In most states workers in exempted or excluded employments may be brought under coverage of the act through voluntary action of the employer. In other states, such action of the employer must be concurred in by the employees.

<sup>2</sup>Applying to private employments only. The exceptions for public employments are given under "Employments Covered—Public."

Me.<sup>4</sup> Seasonal or casual employee exempt if employer maintains liability insurance.

Mich.<sup>5</sup> Corporate officer who is 10% shareholder of corporation with up to 10 shareholders may reject.

Minn.<sup>6</sup> Act does not apply to persons covered by Domestic Volunteer Service Act of 1973, as amended.

Mo.<sup>7</sup> Employers who do not elect coverage are liable to suit with defenses abrogated.

N.Y.<sup>8</sup> Uninsured executive officers of a not-for-profit, unincorporated association may reject.

CHART II □ COVERAGE OF LAWS □ January 1, 1986 (continued)

JURISDICTION	EMPLOYMENTS COVERED <sup>1</sup>		EXCEPTIONS <sup>2</sup>	SPECIAL COVERAGE PROVISIONS <sup>3</sup>
	PRIVATE	PUBLIC		
NORTH DAKOTA	Compulsory as to all hazardous employments. Elective as to corporate officers, partners or sole proprietors, and resident family members.	Compulsory as to all public employments.	Farm labor, domestic servants, casual workers, illegal enterprises or occupations, and clergy.	Voluntary as to nonhazardous and excluded employments.
OHIO	Compulsory as to all employments. Elective as to partners and sole proprietors.	Compulsory as to state, counties, cities, townships, incorporated villages, and school districts.	Casual and domestic workers paid less than \$160 by one employer in any 3-month period.	Elective as to officers of family farm corporations.
OKLAHOMA	Compulsory as to all employments. Elective as to 10% shareholders, partners, and sole proprietors.	Compulsory as to the state, counties, cities, or municipalities employing workers in hazardous employments, except where equivalent schemes are in force.	Domestic and casual employees of homeowner whose annual payroll is under \$10,000; worker covered by federal law, agricultural/horticultural employee whose annual payroll is under \$100,000; real estate salesmen and brokers.	Excludes certain persons sentenced to public service, assigned to work release or private prison industry programs.
OREGON	Compulsory as to all employments. Elective as to sole proprietors, partners, and corporate officers who are also directors with a substantial ownership interest. <sup>4</sup>	Compulsory as to state departments, cities, or towns and other political subdivisions. Covers volunteer firemen in state schools for deaf and blind.	Domestic, casual labor, interstate transportation, certain charitable or relief work, newspaper carriers, amateur sports officials, volunteer ski patrol, owners and operators of certain motor vehicles, and commission-paid real estate agents.	Voluntary as to exempt employments. Covers clerks in Vocational Rehabilitation Division. Owner-operator of equipment by hire or lease may elect coverage.
PENNSYLVANIA	Compulsory as to all employments.	Compulsory as to all public employments except elected officials. Students in vocational work program covered as employees of employer.	Domestic or casual labor, outworker <sup>5</sup> farmer with 1 employee who works less than 20 days a year or earns less than \$150 a year.	Voluntary as to casual and domestic service. <sup>6</sup>
PUERTO RICO	Compulsory as to all employments.	Compulsory as to all salaried public employments.	Casual and domiciliary workers.	Voluntary for sole proprietors and their families when supervising or engaging in manual labor in their business or farm.
RHODE ISLAND	Compulsory as to all employers of 4 or more employees in hazardous occupations.	Compulsory as to the state and city of Providence, elective as to cities or towns.	Agriculture, domestic service. Excludes van pooling recipients except driver.	Voluntary as to agriculture, domestic service, and employers of less than 4 employees, except those in hazardous occupations. Excludes employer-sponsored social or athletic activity.
SOUTH CAROLINA	Elective as to all employers of 4 or more, including active partners and sole proprietors whose employees are eligible for benefits.	Compulsory as to all public employments except elective and appointive officials. Coverage extended to members of the State and National Guard.	Casual employees, persons engaged in selling agricultural products, farm labor, rebar, express companies, state and county fair associations, employer with annual payroll under \$3,000.	Voluntary as to excluded employments.
SOUTH DAKOTA	Compulsory as to all employments. Elective as to employer performing labor incidental to job.	Compulsory as to all public employments, except elected or appointed officials. Firemen covered. Subdivisions of state may elect to cover elected and appointed officials. Students in vocational work program covered as employees of employer.	Farm labor, domestic servants if employed more than 20 hours in any week and more than 6 weeks in any 13-week period, and workite participants.	Voluntary as to farm labor and domestic service. Compulsory as to operators of farm machinery, e.g. threshers, combines, shears, combines.
TENNESSEE	Compulsory as to all employers of 5 or more. Corporate officers may reject. Elective as to partners and sole proprietors.	Voluntary as to state and political subdivisions.	Farm labor, domestic servants, casual employees, employees of interstate common carriers, and voluntary ski patrolmen.	Voluntary as to employers of less than 5.
TEXAS	Elective as to all employments. Elective as to corporate officers, partners, and sole proprietors. Farm-ranch operator may elect to cover self, partner, corporate officer or family member.	State provides self-insurance coverage for Highway Dept., University of Texas, and Texas A&M University. Counties and municipalities may provide compensation for their employees (by separate act). <sup>7</sup>	Domestic servants, railroads used as common carriers, and employees not in usual course of employer's business, seasonal farm-ranch labor for employer with payroll under \$25,000, <sup>8</sup> and other farm-ranch labor for employer with payroll under \$75,000. <sup>9</sup>	Specifically covers motorbus companies. Elective as to exempt workers. Real estate salesman by commission only may elect coverage.
UTAH	Compulsory as to all employments. Elective as to partners and sole proprietors.	Compulsory as to all public employments, including volunteers.	Casual employees, farm employers whose payroll is less than \$2,500 per year, who do not employ 4 persons for 40 hours per week for 13 weeks during year, or employer-owner's family. Domestic workers who work less than 40 hours per week for a single employer. Real estate salesman or broker.	Voluntary as to farm labor and domestic service.
VERMONT	Compulsory as to all employments. Corporate officers may reject.	Compulsory as to all public employments, including legislators while in session, teachers, police, firemen, town and school employees, other municipal employees entitled to pensions, and road commissioners or selectmen engaged in highway maintenance or construction. <sup>10</sup>	Casual or domestic employees, amateur athletes, farm labor where employer's payroll is under \$2,000 per year.	Specifically covers cruises and carnival. Exempt farm and employers of domestics may elect coverage.
VIRGIN ISLANDS	Compulsory as to all employments. Elective as to partners and sole proprietors.	Compulsory as to all public employments.	Casual and domestic employees, and volunteers for charitable organizations.	Voluntary as to exempt employers and employees.
VIRGINIA	Compulsory as to employers of 3 or more and farm employer with more than 2 full-time employees. Elective for partners and sole proprietors. Corporate officers may reject for accidental injury only.	Compulsory as to all public employments, except administrative officers and employees elected or appointed for definite terms. <sup>11</sup> Includes judges of Supreme Court and Circuit Court and judges and clerks of juvenile, domestic relations, and district courts.	Casual employees, horticultural and farm laborers, domestic servants, employees of steam rebar, employments not in usual course of employer's trade, business, or occupation, and real estate salesmen associated brokers or commission, under independent contract, or who are not treated as employees for federal income tax purposes.	Voluntary as to employers of less than 3 farm labor and domestics.
WASHINGTON	Compulsory as to all employments. Elective as to partners, sole proprietors, joint ventures, and corporate officers who are shareholders/directors.	Compulsory as to all public employments.	Home repair and gardening workers, railroad workers, unpaid workers in elementary institutions, children under 18 on a family farm, jockeys, farm labor earning less than \$150 from one employer in calendar quarter, <sup>12</sup> and employees not in usual course of employer's business.	Covers apprentices registered with Apprenticeship Council. Excludes purchase of contract musical or entertainment performance.
WEST VIRGINIA	Compulsory as to all employments. Elective as to partners, sole proprietors, and officers or shareholders in Subchapter S corporations.	Compulsory as to all public employments, including elected officials. Elective for churches.	Domestic workers, farm labor of 5 or fewer, casual employees, and employees working out of state (except temporary).	Compulsory for officers of corporations and executive associations. Elective as to employees in organized professional sports, including thoroughbred horse racing.
WISCONSIN	Compulsory as to all employments (except farm labor) if paid \$500 or more in any calendar quarter for services in the state. Compulsory as to farmers with 8 or more employees.	Compulsory as to all employees, including state legislators. Includes certain vocational education students.	Domestic servants and casual employees.	Voluntary as to excluded employments. Elective as to working partners and up to two corporate officers in a closely held family corporation. Includes participant in community work experience program.

NOTE: State courts vary in decisions whether minimum number of persons must be in state.

<sup>1</sup>Compensation laws are classified as compulsory or elective. A compulsory law requires every employer to accept the act and pay the compensation specified. An elective act is one in which the employer has the option to either accept or reject the act, but if he rejects it he loses the customary common law defenses (risk assumed by employee, negligence of fellow servants, and contributory negligence). In most cases workers in accepted or excluded employments may be brought under coverage of the act through voluntary action of the employer. In other states, such action of the employer must be concurred in by the employees.

<sup>2</sup>Applying to private employments only. The exceptions for public employments are given under "Employments Covered—Public."

<sup>3</sup>Outworker is a person to whom articles are given for cleaning, repair, etc., at home.

<sup>4</sup>Ownership interest not required for certain family farms.

<sup>5</sup>Pa. "Elective for members of certain State Treasurer, and State religious sects whose tenets prohibit benefits from insurance, provided the act makes provision for its members."

<sup>6</sup>Texas "Subdivisions may elect to cover officer deemed volunteer fireman, police, and emergency medical personnel."

<sup>7</sup>To be adjusted for inflation.

<sup>8</sup>\$50,000 for 1986-90, \$25,000 or 3 more employees for 1991 (state amounts to be adjusted for inflation).

<sup>9</sup>Vt. "Municipalities may elect coverage of other employees. Excludes other elected officials, certain judges, sheriffs, and county treasurers and clerks."

<sup>10</sup>Wa. "Governing body of county, city, or town may elect coverage of its members."

<sup>11</sup>Wash. "Farm labor provision held unconstitutional by state Supreme Court (Macias vs. Dept. of Labor and Industries) on 9/9/83."

CHART II □ COVERAGE OF LAWS □ January 1, 1986 (continued)

JURISDICTION	EMPLOYMENTS COVERED <sup>1</sup>		EXCEPTIONS <sup>2</sup>	SPECIAL COVERAGE PROVISIONS <sup>3</sup>
	PRIVATE	PUBLIC		
WYOMING	Compulsory as to enumerated "extra-hazardous" occupations conducted for gain. Elective as to corporate officers.	Compulsory as to state, counties, and municipal corporations when engaged in "extra-hazardous" work.	Domestic servants and casual employees; office workers; sales clerks; farm and ranch workers.	Elective as to farm and ranch workers (except dude ranches).
F.E.C.A.		All civil employees of the U.S. government, including wholly owned instrumentalities, and persons performing activities of civil employees without pay.		
LONGSHORE ACT	Compulsory as to all maritime employment nationwide, including longshoring, harborworking, shipbuilding, or ship repair.	Officers and employees of the U.S. or any state or foreign governments are not covered.	Master or crew of any vessel and persons unloading or repairing vessels of less than 18 tons. <sup>4</sup> Not applicable to maritime employment in Puerto Rico. <sup>5</sup>	Act also applies to workers at military bases and public works abroad; welfare and morale service workers for military abroad, and workers for nonappropriated funds (ship's services, PX's, etc.) in U.S. and abroad.
ALBERTA	Compulsory as to all nonexempted employments. Corporate officers are covered <sup>6</sup> ; employer may elect coverage for self. Elective as to partners and sole proprietors.	Compulsory as to provincial employees; most school teachers are exempt.	Employments listed in General Regulations (includes farm labor, domestics, outworkers <sup>7</sup> , financial institutions, religious and charitable institutions, social services, medical and dental services, athletes, and employees of labor unions).	Voluntary as to exempted employments and corporate directors. Board may include any individual or class by regulation.
BRITISH COLUMBIA	Compulsory as to all employments listed in Part I. Employer may elect coverage for self.	Compulsory as to all provincial and municipal employees, including members of fire brigade, ambulance staff.	Outworkers, <sup>7</sup> casual labor, performers.	Voluntary as to independent operators, certain members of employer's family and unenumerated employments. Board may include any industry by regulation. Lt. Gov.-in-Council may require coverage of commercial fishing industry.
MANITOBA	Compulsory as to all employments listed in Schedule I. Elective as to corporate officer, employer, or sole proprietor.	Compulsory as to all provincial and municipal employments, except employees of school boards, including teachers.	Farm labor, outworkers, <sup>7</sup> casual labor.	Voluntary as to unenumerated and exempted employments. Lt. Gov.-in-Council may include any industry by regulation.
NEW BRUNSWICK	Compulsory as to all regular employees of 3 or more. Compulsory as to salaried corporate officer or director. Employer may elect coverage for self.	Elective as to public employments.	Outworkers, <sup>7</sup> domestic servants, and persons whose employment is of a casual nature and otherwise than for the purpose of business. <sup>8</sup>	Voluntary as to exempted employments. Lt. Gov.-in-Council may regulate exclusion of industry in which not more than stated number of workers fixed by regulation are usually employed.
NEWFOUNDLAND	Compulsory as to all employments except as excluded by regulation.	All provincial and federal employees are covered.	Artists, entertainers, circus and trade shows, newsmen, and clergy; employment by a person in respect of a function in private residence of that person; salesmen employed out of province; sports professionals, instructors, players and coaches, volunteers and outworkers. <sup>7</sup>	Commissioner may exempt employer or worker.
NORTHWEST TERRITORIES	Compulsory as to all employments. Elective as to corporate officers.	Compulsory as to territory government.	Partners in professional firms.	Commissioner may exempt industry, employer, or worker. Voluntary as to exempted employments.
NOVA SCOTIA	Compulsory as to employments listed in Part I. Board has exempted employers of 2 or fewer. Includes corporate executives; employer may elect coverage for self.	Elective as to public employments. Firemen and police are excluded. Board may exclude public officials.	Casual labor, outworkers, <sup>7</sup> farm labor, domestic servants. By regulation Board has excluded specific industries, including educational institutions, persons in medical work and dental surgery, veterinarians, athletes, barbers, taxicabs, florists, horticultural employment, entertainers, and aviation industry.	Voluntary as to exempted employments. Board may include or exclude any industry or set numerical exemption by regulation.
ONTARIO	Compulsory as to all employments listed in Schedules I and II. Corporate officer may elect coverage.	Compulsory as to all provincial and municipal employments.	Domestic servants, outworkers <sup>7</sup> .	Voluntary as to unenumerated and exempted employments.
PRINCE EDWARD ISLAND	Compulsory as to employments listed in Part I. Board has exempted employers with 1 employee. Elective as to corporate officer.	Compulsory except for municipal officers. Municipal firemen and police may be covered on application.	Casual labor, outworkers, <sup>7</sup> farm labor, domestic servants, taxi industry, junk industry, employers of 9 or fewer, aviation industry employers of 99 or fewer.	Voluntary as to unenumerated and exempted employments.
QUEBEC	Compulsory as to all employments.	Compulsory as to all provincial and municipal employments.	Domestic servants and outworkers covered upon request. <sup>9</sup>	Voluntary as to unenumerated and exempted employments.
SASKATCHEWAN	Compulsory as to all employments. Compulsory for corporate officers and salaried employees.	Compulsory as to all provincial and municipal employments. Municipalities and corporations may elect coverage of mayor and members of governing body.	Farm and ranch labor, domestic servants, outworkers, <sup>7</sup> and school teachers.	Voluntary as to exempted employments. Lt. Gov.-in-Council may exclude any industry, employer, or worker.
YUKON TERRITORY	Compulsory as to all employments.	Compulsory as to territory government.	Casual employees, domestics, outworkers <sup>7</sup> .	Voluntary as to exempted employments.
CANADIAN GOVERNMENT EMPLOYEES ACT		Compulsory as to employees of government departments, Crown corporations, boards, commissions, etc. in Canada and abroad.		Claims are determined by provincial boards. Benefits same as for private employees in same province; worker in territory is deemed employed in Alberta.
CANADIAN MERCHANT SEAMEN'S ACT	Compulsory as to all employees of Canadian registered ships, as defined.		Pilots, apprentices pilots, and fishermen.	No compensation payable if enrolled under Government Employees Compensation Act or any provincial act.

<sup>1</sup>Compensation laws are classified as compulsory or elective. A compulsory law requires every employer to accept the act and pay the compensation specified. An elective act is one in which the employer has the option of either accepting or rejecting the act, but if he rejects it he loses the customary common law benefits (not assumed by employee, negligence of fellow servants, and contributory negligence). In most jurisdictions workers in exempted or excluded employments may be brought under coverage of the act through voluntary action of the employer. In other jurisdictions, such action of the employer must be concurred in by the employee.

<sup>2</sup>Applying to private employments only. The exceptions for public employments are given under "Employments Covered—Public."

<sup>3</sup>Outworker is a person to whom articles are given for cleaning, repair, etc., at home.

<sup>4</sup>Wage: Salary of corporate officer is \$2,400 minimum, \$4,800 maximum.

Longshore Act excluded to extent covered by state law are office clerical, secretarial, security or data processing employees, club, camp, recreational operation, restaurant, museum or retail outlet employees; marine employees not engaged in construction, replacement or expansion; persons temporarily on premises not doing work normally performed by employer; aquaculture workers; builders, repairers or demurrers of recreational vessels under 65 feet in length; and master or crew member of any vessel.

<sup>5</sup>By decisional law, *Garco v. Freeseke*, 597 F.2d 264 (1st Cir.), cert. denied, 444 U.S. 840 (1979).

<sup>6</sup>Corporate director may elect coverage.

<sup>7</sup>N.B. By regulation also excludes fishing industry, employers of less than 10 workers in hand laundry and air or water transport, employers of less than 500 workers on vessel in intraprovincial waters.

Many companies opt for purchasing insurance because the purchase can be deducted as expense and future cost in the current year rather than having money paid into a fund which cannot be deducted until disbursement is made.

In 25 states smaller employers are allowed to pool their risks and liabilities to set up group self-insurance. Missouri is one of the states that allows this practice.

According to the U.S. Chamber of Commerce, employers spent just under \$3.5 billion in 1983 on the various types of self-insurance. The U.S. Department of Health and Human Services reporting in the *Social Security Bulletin* estimated that employers spent just over \$22.9 billion in 1983 in purchased insurance and self-insurance combined. Those figures indicate that 85 percent of the money spent was to purchase insurance for workers' compensation rather than self-insure.

In 1972 the National Commission on State Workmen's Compensation Laws completed a study of the laws of the 50 states dealing with workers' compensation and concluded that state laws were not reaching full potential. Multiple recommendations for improving the system were submitted. These recommendations are embodied in the following guidelines given to states to improve their workers' compensation laws:

- state laws should cover all occupations without

exemptions for small employers with only 2-3 people on the payroll

- occupational disease should be fully covered
- a weekly cash benefit to a disabled worker should be at least 2/3 of the weekly wage and subject to the maximum amount set by the state
- benefits should be payable to a disabled worker for the entire period of disability
- benefits should be payable to a widow of a killed worker for life or until widow remarries
- benefits should be payable to children of a killed worker until age 18, or 25 if child is still a student
- medical and rehabilitation expenses should be paid in full without a dollar limit.

After the recommendations of the Commission were given and federal pressure applied to states to comply with standards, many states revised their workers' compensation laws and statutes. In January 1976 a separate Inter-Agency Workers' Compensation Task Force submitted a report showing need for reform of existing programs to bring about more effective management at the state level with the federal government offering technical assistance and monitoring the progress.

Both the National Commission and Task Force rejected proposals to replace state programs with one federal program.

As of 1986, New Hampshire was the only state covering all occupations and employments according to Table 3-1. Forty-two states pay benefits for disability at a weekly rate of 2/3 of the workers' average weekly wages. Only Idaho pays less than 2/3 at this time. Alaska, the District of Columbia, Iowa, and Michigan pay 80 percent of spendable earnings. Other states may pay 70-75 percent of the employee's earnings. (U.S. Chamber of Commerce, 1986)

Certain types of injuries may occur where there is difficulty in determining if the injury occurred in the course of employment. Self-inflicted injuries or injuries due to intoxication could be found non-compensable. Heart attacks and mental disorders may have to go to litigation to determine whether the condition is compensable. Courts have usually been liberal in awarding compensation to employees. (Corley, Reed and Black, 1984)

Another important aspect of workers' compensation is the concept of second-injury funds. These were developed to deal with problems arising when a pre-existing injury combines with a latter to produce a disability greater than the disability caused by the second injury alone. For example, an employee could be blind in one eye. An injury to the seeing eye would then leave the employee totally blind. Second-injury funds were established to encourage employers to hire



the handicapped and to provide equitability for allocating costs of compensating employees suffering a second injury. The employer pays costs related to the second injury. Any cost incurred beyond treating the second injury would be charged to the second-injury fund. In the case of the worker with one seeing eye mentioned earlier, the employer would pay the costs allowed for the loss of one eye. The costs for rehabilitation for total blindness would be covered from the second-injury fund. Not all states have provisions for a second-injury fund.

There are particular types of benefits given under workers' compensation statutes. They are:

- Medical expenses. Costs associated with medical treatment of injury or illness.

- Total temporary disability. Benefits paid to compensate loss of income. An employee is expected to return to work after a period of time and be gainfully employed. This is the most common type of benefit awarded.

- Permanent total disability. Benefits paid to compensate loss of income. An employee is no longer able to perform any gainful employment.

- Partial disability. This could be a scheduled or "non-scheduled" benefit. The injuries for which scheduled benefits are often granted are shown in Table 3-2.

- Survivors death benefits. This is money paid to a widow and children to compensate to loss of main wage-earner's income.

- Rehabilitation benefits. These benefits pay for training for a new job if needed.

Table 3-2.

Injuries Often Compensated on a Benefit Schedule

Arm At Shoulder	Leg At Hip
Hand	Foot
Thumb	Great Toe
First Finger	Other Toes
Second Finger	One Eye
Third Finger	Hearing One Ear
Fourth Finger	Hearing Both Ears

This chapter provided a general overview of workers' compensation and how the concepts evolved. The specifics of Missouri law will be covered in the next section of this project.

Missouri Workers' Compensation Law.

any employer dealing with employee injury needs to have a basic understanding of the law of the state. A

## PART II: BACKGROUND AND LITERATURE SEARCH

business - in locations in various states and in fact with the law in each state where it employs people. Because the business in this study solely employs in the state of Missouri, that state's law is the one with which this business must comply.

A copy of the Missouri Workers' Compensation Law and Regulations, September 1984 is the source of the information for this chapter. Anyone can obtain a copy of the Missouri law from the Division of Workmen's Compensation, Department of Labor and Industrial Relations of Missouri, Jefferson City, Missouri, for the cost of \$4.00. The September 1985 printing is used for this study because the publication of law for that year is relative to the years this study covers.

Missouri's Workers' Compensation Law is considered a compulsory law. All employees having five or more employees and not exempt as specifically defined in the law must provide workers' compensation for their employees. Because the business in this study must provide compensation for its employees if they are injured in the course of their employment.

Any person who works for this business for 3 1/2 consecutive days is considered an employee. All

## Chapter Four - Missouri Workers' Compensation Law

Any employer dealing with employee injury needs to have a basic understanding of the law of the state. A business with locations in various states must be familiar with the law in each state where it employs people. Because the business in this study solely employs in the state of Missouri, that state's law is the one with which this business must comply.

A copy of the Missouri Workers' Compensation Law and Regulations, September 1984 is the source of the information for this chapter. Anyone can obtain a copy of the Missouri law from the Division of Workmen's Compensation, Department of Labor and Industrial Relations of Missouri, Jefferson City, Missouri for the cost of \$4.00. The September 1984 printing is used for this study because the publication of law for that year is relative to the years this study covers.

Missouri's Workers' Compensation Law is considered a compulsory law. All employers having five or more employees and not exempted as specifically defined in the law must provide workers' compensation for their employees. By law the business in this study must provide compensation for its employees if they are injured in the course of their employment.

Any person who works for this business for 5 1/2 consecutive work days is considered an employee. All

minors (anyone under age 18) who work for an employer are also eligible for full benefits under the law.

Section 287.020 of the Missouri Workers' Compensation Law contains definitions of terms pertinent to workers' compensation. They are as follows:

1. The word "employee" as used in this chapter shall be construed to mean every person in the service of any employer, as defined in this chapter, under any contract of hire, express or implied, oral or written, or under any appointment or election, including executive officers of corporations. Any reference to any employee who has been injured shall, when the employee is dead, also include his dependents, and other persons to whom compensation may be payable. The word "employee" shall also include all minors who work for an employer, whether or not such minors are employed in violation of law, and all such minors are hereby made of full age for all purposes under, in connection with, or arising out of this chapter.

2. The word "accident" as used in this chapter shall, unless a different meaning is clearly indicated by the context, be construed to mean an unexpected or unforeseen event happening suddenly and violently, with or

without human fault and producing at the time objective symptoms of an injury.

3. The terms "injury" and "personal injuries" shall mean violence to the physical structure of the body and to the personal property which is used to make up the physical structure of the body, such as artificial dentures, artificial limbs, glass eyes, eyeglasses, and other prosthesis which are placed in or on the body to replace the physical structure and such disease or infection as naturally results therefrom. These terms shall in no case except as specifically provided in this chapter be construed to include occupational disease in any form, nor shall they be construed to include any contagious or infectious disease contracted during the course of the employment, nor shall they include death due to natural causes occurring while the worker is at work.

4. "Death" when mentioned as a basis for the right to compensation means only death resulting from such violence and its resultant effects occurring within three hundred weeks after the accident; except that in cases of occupational disease, the limitation of three

hundred weeks shall not be applicable.

Other definitions are covered in this part of the Missouri law but will be discussed in other parts of this project.

There is, within the Workers' Compensation law, a section that considers the liability of employer - landlords, contractors, and subcontractors. This differentiation is pertinent to subsequent recommendations in this project.

This business when doing routine maintenance such as mowing the grounds or cleaning residence halls would be liable according to section 287.040 of the law which reads:

1. Any person who has work done under contract on or about his premises which is an operation of the usual business which he there carries on shall be deemed an employer and shall be liable under this chapter to such contractor, his subcontractors, and their employees, when injured or killed on or about the premises of the employer while doing work is in the usual course of his business.

This business, when hiring a contractor or subcontractor for specific projects such as renovating or razing a building, would not be liable for the

subcontractor's employees if they were injured according to section 287.040 of the law which reads:

3. The provisions of this section shall not apply to the owner of premises upon which improvements are being erected, demolished, altered or repaired by an independent contractor but such independent contractor shall be deemed to be the employer of the employees of his subcontractors and their subcontractors when employed on or about the premises where the principal contractor is doing work.

When reviewing the claims and accidents to employees, one must know that Missouri law states that employers are liable, irrespective of negligence, to provide compensation. The law, section 287.120 states:

1. Every employer subject to the provisions of this chapter shall be liable, irrespective of negligence, to furnish compensation under the provisions of this chapter for personal injury or death of the employee by accident arising out of and in the course of his employment, and shall be released from all other liability therefor whatsoever, whether to the employee or any other person. The term



" accident" as used in this section shall include, but not be limited to, injury or death of the employee caused by the unprovoked violence or assault against the employee by any person.

Reviewing past work injuries, this business was not negligent in most, if any, of the injuries sustained by employees but still was liable because of the law. If the business had failed to comply with state law or statute and caused injury to an employee, that employee would be eligible for a fifteen percent increase in benefits.

Employees can receive compensation even if injured by a student, visitor, or any other person. However, if injury was intentionally self-inflicted, the employee would not be eligible for benefits, but the burden of the proof of intentional self-injury would be on the employer or person contesting the claim.

Also, if an employee failed to use a safety device provided by an employer, or the employee failed to obey posted safety rules and was injured, the compensation benefits could be reduced by fifteen percent.

When an employee is injured, the employer is to provide medical treatment, such as a physician, ambulance, surgical or hospital care, and medicine as may reasonably be required to cure and relieve the

effects of the injury. The employer can also be expected to pay transportation costs of getting an employee to medical care up to a 100 mile limit. According to Missouri law, the employer has the right to select the treating physician. The law, section 287.140 reads:

9. The employer shall have the right to select the licensed treating physician, surgeon or other health care provider; provided, however, that such physicians, surgeons or other health care providers shall offer only those services authorized within the scope of their licenses.

If the employee wants his own physician, he may do so if the employee pays the expense. The law, section 287.140 reads:

1. .... If the employee desires, he shall have the right to select his own physician, surgeon, or other requirement at his own expense.

The choice of physician is relevant to this study. One insurance company administering the workers' compensation insurance for this business began requiring employees to be seen by certain company-selected physicians because it appeared a local physician in one

or two cases had made excessive charges for the conditions treated.

If an employee is injured, he/she must give written notice to the employer of the time, place, and nature of the injury along with the name and address of the injured person as soon as practicable but no later than 30 days after the accident according to Missouri law, section 287.240. This business has a specific form the employee is to fill out. Often the employee fills the form out in the presence of the supervisor of his department, in the campus health center, or at the personnel office.

Missouri law has a waiting period before an employee can receive compensation for a temporary disability. An employee shall not be paid for the first 3 days of a disability lasting less than 14 days. For disability lasting more than 14 days, the first three days are paid retroactively. Section 287.160 deals with waiting periods and states that the compensation will be paid as regular wages were paid prior to the injury - either once per week or once every two weeks. Compensation shall be paid at the rate of  $66 \frac{2}{3}$  percent of the employee's average earnings.

Section 287.170 of the Workers' Compensation Law indicates that an employee shall not pay more than 400 weeks of compensation for a temporary total disability and the amount awarded has maximum limits depending on

when the injury occurred. Weekly compensation can be no less than \$40 per week. Section 287.180 deals with temporary partial disability and the dates and scales are the same as defined under the section for total disability with the exception that an employer cannot pay compensation for temporary partial disability for more than 100 weeks.

For permanent partial disability, a schedule of losses is used. Table 4-1 shows the number of weeks that compensation will be awarded for a particular injury. The weekly dollar amount awarded is proportionate to the dollar amount the employee was earning prior to the injury.

Loss of one eye at the eye or eye socket	200
Loss of one eye at the eye socket and use of artificial eye	150
Loss of one eye at the eye socket and use of artificial eye with the remaining vision sufficient to permit the use of artificial eye	100
Loss of one eye or of whole ear and other eye or ear	150
Loss of one hand or arm	100
Loss of one foot or leg	110
Loss of great toe of one foot at proximal joint	30
Loss of great toe of one foot at distal joint	25
Loss of any other toe at proximal joint	15
Loss of any other toe at distal joint	10
Complete destruction of both ears	100
Complete destruction of one ear, the other being normal	50
Complete loss of the sight of one eye	100

Table 4-1.

## SCHEDULE OF LOSSES

	Number of Weeks
Loss of arm at shoulder	232
Loss of arm between shoulder and elbow	222
Loss of arm at elbow joint	210
Loss of arm between elbow and wrist	200
Loss of hand at the wrist joint	175
Loss of thumb at proximal joint	60
Loss of thumb at distal joint	45
Loss of index finger at proximal joint	45
Loss of index finger at second joint	35
Loss of index finger at distal joint	30
Loss of either the middle or ring finger at the proximal joint	35
Loss of either the middle or ring finger at the second joint	30
Loss of either the middle or ring finger at the distal joint	26
Loss of little finger at proximal joint	22
Loss of little finger at second joint	20
Loss of little finger at distal joint	16
Loss of one leg at the hip joint or so near thereto as to preclude the use of artificial limb	207
Loss of one leg at or above the knee, where the stump remains sufficient to permit the use of artificial limb	160
Loss of one leg at or above ankle and below knee joint	155
Loss of one foot in tarus	150
Loss of one foot in metatarus	110
Loss of great toe of one foot at proximal joint	40
Loss of great toe of one foot at distal joint	22
Loss of any other toe at proximal joint	14
Loss of any other toe at second joint	10
Loss of any other toe at distal joint	8
Complete deafness of both ears	168
Complete deafness of one ear, the other being normal	44
Complete loss of the sight of one eye	140

July 1, 1961 .....

July 1, 1962 .....

July 1, 1963 .....

July 1, 1964 .....

In all the compensation benefits awarded, the monetary amount granted is not to exceed 70 percent of the average weekly wage for the state as determined by the division of employment security. For example, if the average weekly wage for all full-time employed people across the state of Missouri is \$250, the compensation cannot exceed \$175.00 per week. If an employee earns \$350 per week, 2/3 of the wage would be \$233.33 but the employee cannot draw more than \$175.00 per week in compensation benefits. If a worker earns \$200 per week, 2/3 of the wage would be \$133.33 and that would be the amount that person would be awarded if eligible for workers' compensation.

A table for the state average weekly wage (SAWW) is given in the Missouri Workers' Compensation Law and Regulations (1984). Table 4-3 gives the information from that table.

Table 4-3.

Missouri State Average Weekly Wage

July 1, 1980	.....\$238.85
July 1, 1981	.....\$260.99
July 1, 1982	.....\$284.23
July 1, 1983	.....\$303.13
July 1, 1984	.....\$318.19

Section 287.210 of the Missouri law deals with physical examination of employees and exchange of medical records. The law states:

1. After an employee has received an injury he shall from time to time thereafter during disability submit to reasonable medical examination at the request of the employer, his insurer, the commission, the division or an administrative law judge, the time and place of which shall be fixed with due regard to the convenience of the employee and his physical condition and ability to attend. The employee may have his own physician present, and if the employee refuses to submit to the examination, or in any way obstructs it, his right to compensation shall be forfeited during such period unless in the opinion of the commission the circumstances justify the refusal or obstruction.

2. The commission or the division may appoint a duly qualified impartial physician to examine the injured employee, and any physician so chosen, if he accepts the appointment, shall promptly make the examination requested and make a complete medical report to the commission or the

division in such duplication as to provide all parties with copies thereof.

In some cases of workers' compensation claims with the employer in this study, an impartial physician was chosen to examine an employee who was unable to return to work because of continuing disability.

In summary, the parts of the law pertaining to this study state that:

(1) Business XYZ is liable for medical care and compensation for injuries and death for its employees resulting from their work at Business XYZ.

(2) Business XYZ does not have to be negligent to be liable for compensating its employees for injury or death.

(3) Contractors and subcontractors are responsible for their own employees when they are doing projects at Business XYZ that are not in the course of routine business conducted at Business XYZ.

(4) An employer has the right to select the treating physician for a work-related injury to an employee.

(5) Compensation for injuries are awarded by schedules determined by the Division of Workers' Compensation.



(6) An injured employee must notify Business XYZ in writing of injury. This is done by filling out an accident report.

(7) Business XYZ must report to state Division of Workers' Compensation any injury requiring more than basic first aid.

There are many more sections concerning specifics of awards, treatments of certain conditions, and death benefits but sections of the law most relevant to the needs of the business of the study have been selected for this chapter. The pertinence of the selected sections will be discussed in subsequent chapters.

## Chapter Five - Organization of Division of Workers' Compensation

The Missouri Workers' Compensation Law and Rules and Regulations define the organization of the Division of Workers' Compensation. Title 8 - The Rules of Practice and Procedure for the Department of Labor and Industrial Relations contains two divisions relative to workers' compensation. Division 20 defines the commission under the Department of Labor and Industrial Relations and Division 50 defines the Division of Workers' compensation.

The Division of Workers' Compensation is within the Department of Labor and Industrial Relations of the state of Missouri. The Department of Labor and Industrial Relations is controlled by a three-man commission which transacts business in Jefferson City, Missouri. Whenever the Workers' Compensation Law refers to the "commission", it refers to the aforementioned Commission. The Commission is a creature of the legislature and its jurisdiction is determined by an act of the legislature. The three people who compose the Commission are appointed by the governor with consent of the senate. One member must be licensed to practice law in Missouri and shall represent the public. Another member on account of his/her previous vocation or interests represents the employer. The third member on account of his/her vocation, interests, or affiliation

represents the employer.

The Division of Workers' Compensation has powers, duties and functions on behalf of the commission in the administration of workers' compensation. Chapter 3 (8 CSR 20-3.010) of the Rules of Practice and Procedures separates the jurisdiction of the division and commission in contested cases. The filing of all reports of injuries, claims for compensation, and all other documents relative to a workers' compensation claim must be filed with the Division of Workers' Compensation before the issuance of a final award or decision by an administrative law judge.

Original hearings on contested cases are heard by the administrative law judge of the division. A contested case, for example, could be brought to the division by an employee who felt he/she was entitled to compensation but was denied compensation by the employer or insurance company because the insurer felt the illness or injury was not work-related. Heart attacks are a good example of cases that often go to a hearing. Business XYZ had an employee suffer a heart attack in 1981 that was paid by workers' compensation insurance but not all heart attacks that might happen on the job are compensable. In the case of Wiedmaier v. Robert A. McNeil Corp. the plaintiff was denied workers' compensation benefits by the administrative law judge. The Commission affirmed and the Court of Appeals held

the medical opinion was speculative and the plaintiff had not sustained his burden of proof.

If Business XYZ would have a contested claim, the hearing would be held by the administrative law judge in the east division in St. Louis. Documents pertinent to claims against Business XYZ are kept in the St. Louis office of the Workers' Compensation Division. After a case is closed the permanent records are kept in Jefferson City.

After cases are heard by division law judges, they may come before the commission for a number of reasons. Compromise settlements can be reviewed by the Commission. The Commission also has sole authority to modify final awards allowing death benefits to dependents. Appeals are reviewed by the Commission.

Division 50 of the Rules and Regulations is specific for the Division of Workers' Compensation. Regulation 8 CSR 50-1.010 states:

- (1) The Workers' Compensation Division of the Department of Labor and Industrial Relations administers the Workers' Compensation Law, Chapter 287 RSMo (1969), to insure injured employees receive prompt and adequate medical treatment, payment of benefits for wage loss, compensation for permanent disability and physical

rehabilitation for the severely injured by providing assistance to injured workers, to include filing of claims and conducting hearings to resolve disputes between employers and employees relating to workers' compensation benefits.

The primary office of the Division of Workers' Compensation in Missouri is located in Jefferson City. Branch offices are in Cape Girardeau, Joplin, Kansas city, St. Joseph, St. Louis, and Springfield. Information concerning workers' compensation can be obtained at these locations.

Chapter 2 of the Missouri Regulations for the Division of Workers' Compensation (8 CSR 50-2.010) sets the procedures relating to claims for work-related injury. Any injury requiring medical aid (other than first-aid only) must be reported to the Division on Form 1, Report of Injury, by the employer and/or the insurer. In the case of Business XYZ, the reports usually are filed by the insurance carrier.

If the employee suffers no compensable disability, Form 1 is all that need be filed as long as the form shows the complete cost of medical aid. More forms are sent to the division if there is temporary or total disability. Each type of condition requires specific procedures and forms be used.

If parties fail to agree on compensation, the employee or dependents file a Claim for Compensation with the Division. A whole continuing process begins with the receipt of a Claim for Compensation at the Division. Within 15 days the Division sends a notice of the claim to the employer and/or insurer. The employer or insurer then has to send back an Answer to Claim for Compensation within 15 days. The case is then placed on the docket for setting at an early date. Extensions on time can be obtained by following proper procedures.

At the beginning of each hearing the administrative law judge determines what facts each party agrees on, then confines the evidence to the contested issues. If services of an attorney are found to be necessary, the administrative law judge shall set a reasonable fee and may allow it as a lien on the compensation found due.

The division must have certain types of employees to carry out its work. All salaries are fixed by the Division and approved by the Labor and Industrial Relations Commission. Legal advisors, legal counsel, administrative law judges and an administrative law judge in charge are appointed by the Division. The appointees in each classification are to be selected as nearly as practicable in equal numbers from the two political parties receiving the highest number of votes for governor in the last election.

The Division has a director, division counsel, and

chief administrative law judge located in Jefferson City. Each branch office is the post for a chief administrative law judge. The number of additional administrative law judges, counsels, advisors, recorders, and clerical people can vary from branch to branch.

The Division has the power to destroy reports of injuries on which no compensation (exclusive of medical costs) was due or paid upon the expiration of five years after receipt of the records. The records of compensable cases can be destroyed ten years after termination of compensation.

To pay for the expense of administrating the Division and maintenance of the second-injury fund, each self-insured employer and insurance carrier pays a tax on net deposits or net premiums received. Two-tenths of the tax collected goes to the maintenance of the second-injury fund. This amount is no longer adequate to support the second-injury fund and a new way to supplement the fund must be found. William Roussin, Jr., administrator of the second-injury fund in Missouri stated in a seminar that legislature must be forthcoming to provide monetary aid to the second-injury fund.

Rules governing self-insureds comprise Chapter 3 of the Missouri Regulations. Business XYZ cannot demonstrate sufficient financial strength and liquidity of the business to assure that all obligations could be

promptly met. Because Business XYZ does not qualify to be self-insured, the rules will not be covered in this paper.

Other parts of the Rules and Regulations govern the rehabilitation of disabled workers, determinations on the loss of visual acuity, guidelines for hearing loss, and tables used to determine compensation benefits for widows and interest rates. Most of these rules are not directly related to the focus of this project.

These provisions regarding self-insured employers of four employees or less, 29 CFR 2510.3-1, 2510.3-2, 2510.3-3, 2510.3-4, 2510.3-5, 2510.3-6, 2510.3-7, 2510.3-8, 2510.3-9, 2510.3-10, 2510.3-11, 2510.3-12, 2510.3-13, 2510.3-14, 2510.3-15, 2510.3-16, 2510.3-17, 2510.3-18, 2510.3-19, 2510.3-20, 2510.3-21, 2510.3-22, 2510.3-23, 2510.3-24, 2510.3-25, 2510.3-26, 2510.3-27, 2510.3-28, 2510.3-29, 2510.3-30, 2510.3-31, 2510.3-32, 2510.3-33, 2510.3-34, 2510.3-35, 2510.3-36, 2510.3-37, 2510.3-38, 2510.3-39, 2510.3-40, 2510.3-41, 2510.3-42, 2510.3-43, 2510.3-44, 2510.3-45, 2510.3-46, 2510.3-47, 2510.3-48, 2510.3-49, 2510.3-50, 2510.3-51, 2510.3-52, 2510.3-53, 2510.3-54, 2510.3-55, 2510.3-56, 2510.3-57, 2510.3-58, 2510.3-59, 2510.3-60, 2510.3-61, 2510.3-62, 2510.3-63, 2510.3-64, 2510.3-65, 2510.3-66, 2510.3-67, 2510.3-68, 2510.3-69, 2510.3-70, 2510.3-71, 2510.3-72, 2510.3-73, 2510.3-74, 2510.3-75, 2510.3-76, 2510.3-77, 2510.3-78, 2510.3-79, 2510.3-80, 2510.3-81, 2510.3-82, 2510.3-83, 2510.3-84, 2510.3-85, 2510.3-86, 2510.3-87, 2510.3-88, 2510.3-89, 2510.3-90, 2510.3-91, 2510.3-92, 2510.3-93, 2510.3-94, 2510.3-95, 2510.3-96, 2510.3-97, 2510.3-98, 2510.3-99, 2510.3-100.

The law also states that the employer is fully responsible for the cost of workers' compensation insurance. The law (section 2510.3-101) reads: "No part of the cost of self-insurance shall be assessed against, collected from, or paid by any employee."

If a company or business carries on workers' compensation insurance, its liability for medical expenses and compensation to an injured worker is primary and direct. If an employer is insured, its liability is secondary and indirect, and the insurance carrier is primary and directly liable to the injured employee, his or her dependents or other persons entitled



## Chapter Six - Workers' Compensation Insurance in Missouri

Every employer, with some specific exceptions, is required to carry insurance on its liability related to worker injury or illness. The insurance carrier must be authorized to insure such liability in this state and the insurance company carrying the policy for the employer must file a memorandum of any workers' compensation policy issued to an employer and of any renewals or cancellations thereof.

Those employments exempted from carrying insurance are: an employment that is self-insured, employment of four employees or less, farm labor, domestic servants in a home, occasional labor performed for a private home, and qualified real estate agents.

The law clearly states that the employer is fully responsible for the cost of workers' compensation insurance. The law (section 287.290) reads: "No part of the cost of such insurance shall be assessed against, collected from, or paid by any employee."

If a company or business carries no workers' compensation insurance, its liability for medical expenses and compensation to an injured worker is primary and direct. If an employer is insured, its liability is secondary and indirect, and the insurance carrier is primarily and directly liable to the injured employee, his or her dependents or other persons entitled

to rights. Both the employer and his insurer are parties to all agreements and awards of compensation, but the awards are not enforceable against the employer unless the insurer defaults.

Every workers' compensation insurance policy must be in accordance with the provisions of the Missouri Workers' Compensation Law and must be in a form approved by the superintendent of the Division of Insurance.

Every insurance carrier or group of carriers authorized to insure against workers' compensation liability, must file with the director of the Division of Insurance, its classification of risks and premium rates relating to those risks with its system of schedule rating. All charges for insurance must be fair, reasonable, and adequate with due allowances for merit rating. The Director of Insurance may approve or issue a uniform system of schedule rating (or merit rating) for the insurance carriers, or may modify any system previously approved or issued after holding a hearing to determine where the new or changed system is fair and reasonable.

No insurance carrier can offer insurance at premium rates less than those approved for the group of risks to which they apply. The insurance carrier can apply to the director of the Insurance Division for uniform percentage rates less than the uniform rates as a result of a favorable loss, expense or investment experience.

The carrier must be able to prove that the reduced rates are still adequate for the coverage provided and sufficient to sustain projected losses and expenses.

Within the insurance industry rating organizations function to determine what an employer's loss experience has been and using set formulas (discussed in a later chapter), the rating organization awards a rating to an employer to determine what the premium for workers' compensation for that company should be for the coming year. These rating organizations must conform to Missouri standards and regulations for their authorization to operate in this state. These regulations are found in the Missouri Workers' Compensation Law, Section 287.330.

The rules provide that a rating organization must permit any insurer, not a member, to be a subscriber to its rating services. Notice of proposed changes must be given to subscribers and each rating organization must furnish its rating services without discrimination to its members and subscribers.

Groups engaging in joint underwriting and joint reinsurance are subject to the regulations regarding insurers and rating organizations also. Business XYZ is in a pool of reinsurers that spread the risk among the insurers. Section 287.330 states:



10. Agreements may be made among insurers

with respect to the equitable apportionment among them of insurance which may be afforded applicants who are in good faith entitled to but who are unable to procure workers' compensation and employers' liability through ordinary methods and such insurers may agree among themselves on the use of reasonable rate modifications for such insurance, such agreements and rate modifications to be subject to the approval of the superintendent.

This allows a business to obtain workers' compensation insurance for its employees when it has a poor loss experience due to extenuating circumstances and could not obtain insurance through other channels.

Since the law allows the superintendent of the Division of Insurance access to the books, records, documents and accounts of rating organizations, the rating organizations can be audited for the sake of promoting fair business practice. The law also states that the superintendent make an examination of each rating organization licensed by the state at least once every five years.

An advantage of an objective regulatory agency over rating organizations to the employer is that the state can establish a fair and reasonable scale for premiums. Without the regulatory agency, premium costs could be

excessive for what is really needed to cover projected compensation costs. Also no one insurance company or employer can influence a rating organization to give individual interests a better rating schedule or premium.

...the rating organization does not... in a method that... the cost of... the... characteristics of the employee.

How an employer is rated... rating plan... the cost of the... the employee... insurance. By... and calculating... experience, a... of... of injuries sustained in their... activities.

Experience rating is designed to... an average... of... with a certain number of employees... projected number of... below the expected average... to an employer... of the expected amount... higher... the employer.

Annual rating... compensation insurance groups all... in their business operation or... the losses of the... are added together... obtained. The annual

## Chapter Seven - Experience Rating

Experience rating is an insurance process that uses an insured's past insurance experience to forecast future losses. Experience rating in Missouri is done by the rating organization discussed in Chapter Six. It is a method that tailors the cost of insurance to match the characteristics of the employer.

How an employer is rated through an experience rating plan directly affects the cost of the premiums that employer will pay for his workers' compensation insurance. By looking at past claims and losses and calculating a premium partially dependent on past experience, experience rating encourages employers to implement programs designed to cut down on the number of injuries sustained in their workplaces.

Experience rating is designed to measure departure from an average. A particular type of business with a certain number of employees can be expected to have a projected number of injuries. Variations below the expected average can mean reduced premiums to an employer; variations in excess of the expected amount means higher premium costs to the employer.

Manual rating, as used for compensation insurance, groups all insureds according to their business operation or classification; the losses of the group are added together and an average cost obtained. The manual

method lumps employers into a classification and premiums are charged according to the average. Insurance carriers, if only manual rating was used for calculating premiums, would be expected to seek out the "less risky" insureds within the classification and possibly leave the "more risky" insureds unable to buy coverage because their losses could exceed the premium charged based on the average for the group.

"Experience rating takes average loss experience (manual rates) and modifies it by the individual's own loss experience" is an explanation given by the National Council on Compensation Insurance (ABC's of Experience Rating, 1981). The individual employer's loss experience is determined over a period of time, usually three years. If the employing business has less than expected costs, it is awarded a comparable credit on its premium; if the costs are greater than average, the experience would have a debit rating and higher premium costs.

Two primary benefits of experience rating are that it tailors the net premium cost to the individual insured and it provides an incentive for loss prevention. These two points are the reason Business XYZ began investigating ways to reduce its workers' compensation costs. It wanted to reduce injuries to bring about lower premium costs.

To tailor the experience rating to an individual

employer, certain characteristics of an experience rating plan must be mentioned. An important fact is that experience rating gives greater weight to accident frequency than accident severity. Even though accident frequency carries greater weight, accident severity is considered. Experience rating recognizes both accident frequency and severity by a method known as "split rating". In split rating, injury cost is split at a given dollar amount. Part of the cost incurred is the primary value and the remainder is considered excess -- thus the term "split" is used. For example, the first \$2,000 paid by insurance on a claim can be considered the primary value. The primary value amount is constant for all claims reviewed during the year. Any dollar amount beyond the primary value is considered the excess. For each accident the total amount, if the cost falls below the dollar amount set as the primary value, is used for calculating the premiums. If the costs exceed the primary value, the amount of excess used in calculating the rating is determined by the number of employees employed by the company. Small employers may not have any of the excess amount used in their rating while an employer of large numbers of people would have all the excess applied in its rating.

According to J. Paul Leigh (1985), firms employing over 2,500 employees are usually the only ones fully experience-rated based on their own injury and illness



rates. Firms smaller than 2,500 employees used combined manual (based on similar firms) and experience (own firm's history) rating.

The National Council on Compensation Insurance (1982) has filed a program to update the determination of when a company becomes eligible for experience rating. Under this program, to qualify for experience rating: (1) The company has been rated for a manual premium of at least \$5000 during the last year or two because of payroll or other exposures; or (2) the company payroll or other exposures produces an average annual premium at manual rates of at least \$2,500.

Business XYZ in this study has premiums averaging well over \$2,500 per year as was demonstrated in Table 1-1. In 1982, the National Council on Compensation Insurance (NCCI) states that a \$2,500 premium would correspond to approximately eight employees. What it didn't state was to what classification risk that premium would apply. Business XYZ has 56 full-time faculty members and approximately 85 other full-time employees. The premium Business XYZ paid in June 1982 was \$16,019 -- a moderate amount compared to the \$2,500 for 8 employees stated by the NCCI. For 140 employees, a company could pay \$43,750 if premiums were paid by the above rate.

The reason for the variance due to employer size is statistical. It is easier to predict losses for a large

volume of employees. A small employer may go years without a claim and then have a claim costing far more than the premium paid. Experience rating takes this into account by figuring expected losses.

How the experience rating plan works for small employers and weighting for volume versus severity of loss is well described in the following paragraphs from the National Council on Compensation Insurance (1981):

Experience This is recognized in the plan as follows. The full cost of the first \$2,000 of each claim is included in experience rating. The dollar cost of all claims over \$2,000 is split between primary and excess cost and limited to a maximum primary value of \$10,000. Lastly, none of the excess portion of the individual claim cost is included in the rating of an employer having less than \$25,000 in expected losses. As an example, let's look at an employer with a manual premium size of \$50,000. One injury costing \$30,000 results in a primary cost of \$7,895, and an excess cost of \$22,105. One injury of \$2,000 results in a primary cost of \$2,000 and an excess cost of \$0. The total primary cost of fifteen injuries of \$2,000 is \$30,000, while the primary cost of one injury of \$30,000 is

actual cost \$7,895.

For employers of equal size, the actual primary costs receive more weight than the excess cost. Hence the index for the 15 injury employer will be greater than for the 1 injury employer.

Experience rating is a mandatory plan that applies to all insureds that qualify for experience rating. Experience rating is a standard of measure which can be used by all.

An employer usually must have been in business for at least two consecutive years to be experience rated. Rating is based on the past loss experience for the last three completed policy periods. Because modifications are calculated during the term of the current policy, the experience period begins one year prior to the modification effective date and extends backward in time for three years prior to that date.

For example, if Business XYZ's policy renews June 30, 1985, the injury experience for June 30, 1981 through June 30, 1984 would be used in the formula to calculate the net premium for the policy renewed on June 30, 1985.

Two statistical laws are used in preparing the formula used in experience rating. They are:

- 1.) The larger the base, the more reliable the

actual record. In other words, the more employees an employer has, the more accurate the experience.

2.) The cost of injury varies over a large range and is less predictable than the fact that the injury occurred. It's easier to predict an accident will happen than it is to predict what it will cost.

Exhibits A,B,C,D and E are a series of pages explaining how experience rating is done on a step-by-step basis. The exhibits and pages of explanation are published by the National Council on Compensation Insurance (1981).

- 1) The annual experience rating of the employer is determined by dividing the total amount of compensation paid to employees by the number of employees.
- 2) The annual experience rating is compared to the industry average to determine the experience modification factor.
- 3) The experience modification factor is multiplied by the annual rate to determine the annual experience rating.
- 4) The experience modification factor is also used to determine the annual premium for the employer.
- 5) The annual premium is divided by the number of employees to determine the annual premium per employee.
- 6) The annual premium per employee is multiplied by the number of employees to determine the annual premium for the employer.
- 7) The annual premium for the employer is divided by the number of employees to determine the annual premium per employee.
- 8) The annual premium per employee is multiplied by the number of employees to determine the annual premium for the employer.
- 9) The annual premium for the employer is divided by the number of employees to determine the annual premium per employee.
- 10) The annual premium per employee is multiplied by the number of employees to determine the annual premium for the employer.

## Experience Rating Example

### Introduction

In the example that follows, we will be calculating the experience rating factor for the ABC Corporation's policy which becomes effective 7-1-81. As such, we will use in our calculation the experience for ABC under the three policies which were effective 7-1-77, 7-1-78 and 7-1-79.

The payroll and claim information which is used in experience rating comes from unit statistical reports. Insurance carriers are required to file a unit report with the National Council on Compensation Insurance for each policy they issue. The format for reporting is on file with the regulatory authorities in each state. As many as four subsequent annual reports are required if any changes in exposure or claims take place after the initial report. We will begin our discussion of the experience rating process by taking a closer look at the unit statistical report and the information contained thereon.

### Unit Statistical Report

Exhibit A shows a unit statistical report for the ABC Corporation. A description of each item follows:

- 1 The name of the *Insured* employer.
- 2 The *State* in which the insured conducts its business.
- 3 *Effective Date* and *Expiration Date* of the policy being reported on.
- 4 *Risk Identification Number*—each employer is issued a unique number by the rate service organization so that the employer's past experience can be isolated.
- 5 The *Class Code* describes the type of business the insured is in. For example, 3507 is Agricultural Machinery Manufacturing.
- 6 The *Exposure* is a measure of the size of the insured operations. *Payroll* is used as the exposure base in Workers' Compensation and the terms are often used interchangeably.
- 7 The *Manual Rate* is the cost of insurance per \$100 of payroll (exposure) before the application of experience rating.
- 8 The *Premium* (Manual Premium) is obtained by multiplying the units of exposure (payroll divided by \$100) times the manual rate. For example:  

$$\text{Units of exposure} = 3,868,379 \div 100 = 38,683.79$$

$$\text{Premium} = 38,683.79 \times 3.56 = 137,714$$
- 9 The *Claim Number* is issued by the insurance carrier to identify the claim. Only claims in excess of \$2,000 are listed individually.
- 10 The *Accident Date* is the date on which the injury occurred. It is shown for each claim over \$2,000. For claims under \$2,000 the *number of claims* is shown in this column for each class code.
- 11 The *Incurred Losses* are split between indemnity and medical and include both amounts already paid and also reserves for anticipated future payments on claims which are still open.
- 12 In this column the "O" indicates the claim is still *Open*. The "F" indicates a final payment has been made and the claim is *Closed*.

Exhibit A

REPORT NO <b>1</b>	POLICY NUMBER WC-797979		STATE ANY	STATE NO 55	CARRIER NAME OF INSURANCE COMPANY ABC CORPORATION	CARRIER NO 99999	CARD SERIAL NO 123	ADM FEE NO 1234				
EFFECTIVE DATE <b>3</b> 7-1-79	TERM	EXPIRATION DATE 7-1-80	INSURED	RISK IDENTIFICATION NUMBER 99-1234567								
COND	81	82	83	84	85	86	87	88				
EXP COV	CLASS CODE	EXPOSURE	ANNUAL RATE	PREMIUM	CLAIM NUMBER	ACCIDENT DATE OR NO OF CLAIMS	CLASS CODE	INCURRED LOSSES INDEMNITY	MEDICAL	LOSS COV	CAT NO	
	3507	3,868,379	3.56	137,714	79-0001	9-13-79	3507	50,000	12,500	0		
	7380	107,322	2.80	3,005	80-0002	1-2-80	8810	418	4,408	F		
	8742	132,507	.48	636		4	8742		562	F		
	8810	502,408	.13	653		5	3507	3,034	2,378	F		
A - TOTAL SUBJECT PREMIUM				142,008								
B - EXPERIENCE MODIFICATION				.85								
C - TOTAL MODIFIED PREMIUM (A) X (B)				120,707								
D												
E												
F												
G												
TOTALS	STD	4,610,616	XXX	120,707								
	OTHER		XXX	XXX								
	008 3	PREMIUM DISCOUNT	XXX	(17,716)								
	0900	EXPENSE CONSTANT			TOTALS	11	XXXX	X	53,452	19,848	X	XX
DO NOT USE	PREM SIZE	INDUSTRY GROUP	TYPE	INDUSTRY SCHED	KEYPUNCH #		FORM 21-80		VERIFIER #			

National Council on Compensation Insurance. ABC's of Insurance Rating, 1981, p.7

## Experience Rating Payroll and Loss Data

The first step in the experience rating process is the transfer of payroll and loss information from the unit statistical reports to the experience rating form. Exhibit B shows the experience rating form for ABC Corporation. For ease of comparison with the unit statistical report, each item is numbered the same on the experience rating form as it was on the unit statistical report.

The top section of Exhibit B contains the basic identifying information such as the name of the insured (1), the state in which the insured is located (2), and the risk identification number (4). In addition, we see that the experience modification that we are calculating will be used for the policy which becomes effective 7-1-81 (13).

The payroll and loss information is shown separately for each of the three policies under review. On the left hand side, we have the payroll (exposure) (6) for each classification code (5). On the right hand side, we have the actual incurred losses (11) and the indicator of whether the claim is open or closed and the respective claim number for losses over \$2,000 (12).

A few comments should be made regarding the actual incurred losses. First, in transferring the losses from the unit report to the experience rating form, the indemnity and medical amounts are combined since we are only concerned with the total amount of the claim. For example, claim number 79-0001 at (9) on the unit report has an indemnity cost of 50,000 and medical of 12,500 (11) for a total of 62,500 as is shown at (14) on the experience rating form. Claim number 80-0002 has indemnity of 418 and medical of 4408 for a total of 4,826 (15). In addition, for each year, one total is shown for all claims under \$2,000 and it is designated by an (\*). On the unit report, the indemnity losses of 3,034 and medical losses of 562 and 2,378 total 5,974 and are shown at (16) as the total for all claims under \$2,000 for the year.

National Council on Compensation Insurance. ABC's  
of Experience Rating, 1981 p.8

**WORKERS' COMPENSATION EXPERIENCE RATING** **Exhibit B**

NAME OF RISK: **ABC CORPORATION** **1** **4** RISK IDENT NO: **99-1234567** **2** EFFECTIVE DATE: **07/01/81** **13**

1 CODE	3	4 PAYROLL	5	6	7 CLAIM NUMBER	8 O J F	9 ACCT. INC. LOSSES	11
CARRIER 99999		POLICY NO. 77 77 77			EFF-DATE 07/01/77		EXP-DATE 07/01/78	
3507		2,807,260			77-0024	1 0	20,000	
7380		93,870			78-0006	5 F	12,847	
8742		127,430				*	9,871	
8810		425,480						
POLICY-TOTAL		3,454,040		( SUBJECT PREMIUM = 110,529 )			42,718	
CARRIER 99999		POLICY NO. 78 78 78			EFF-DATE 07/01/78		EXP-DATE 07/01/79	
3507		3,232,201			78-0027	5 F	9,477	
7380		102,618			78-0034	5 0	3,600	
8742		135,368				*	13,243	
8810		462,375						
POLICY-TOTAL		3,932,562		( SUBJECT PREMIUM = 125,842 )			26,320	
CARRIER 99999		POLICY NO. 79 79 79			EFF-DATE 07/01/79		EXP-DATE 07/01/80	
3507		3,868,379			79-0001	2 0	62,500	
7380		107,322			80-0002	5 F	4,826	
8742		132,507				*	5,974	
8810		502,408						
POLICY-TOTAL		4,610,616		( SUBJECT PREMIUM = 142,008 )			73,300	
(A)	(B)	(C) EXPECTED EXCESS (D-E)	(D)	(E)	(F) ACTUAL EXCESS (G-H)	(G)	142,338	(H)

\* Total by Policy Year of all cases \$2,000 or less  
 # Limited loss

PAGE NUMBER ▶	(H)	(I) (C) - 20000 * (1-W)	(12) RATABL EXCESS (A) x (F)	(13) TOTALS (I)	(14) EXP MOD (11)(J)
DATE ▶	(E)		(A) x (C)	(J)	

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# Experience Rating Primary and Excess Actual Losses

As mentioned in the text, an important consideration in experience rating is the frequency of injuries or, stated another way, how often injuries occur. Another component is severity or, how serious the injuries are. The severity has little or no significance for small employers but gains in importance as the size of the employer increases. Our next step, then, is to separate the actual losses into primary and excess components.

The actual Primary Losses are shown at (17) on Exhibit C. For losses under \$2,000, the whole amount is taken as the primary value. Recalling that the (\*) indicates the total of all losses under \$2,000, you will notice that the actual and primary values are the same. For losses over \$2,000, the primary value can be looked up in a table or calculated from a formula. The maximum primary value is \$10,000. In this example, we have total actual losses of 142,338 (18) and primary losses of 63,548 (19). By subtracting the primary from the total losses, we obtain excess losses of 78,790 (20).

For those who are inclined towards doing a little math, we will show you how to calculate the primary values. The process involves an addition, a division, and a multiplication. We will use the first loss on the page (20,000) in our example.

**Step 1** — Add the actual loss to 8,000.  $20,000 + 8,000 = 28,000$

**Step 2** — Divide the actual loss by the answer in Step 1.  
 $20,000 \div 28,000 = .7143$

**Step 3** — Multiply the answer in Step 2 by 10,000.  
 $.7143 \times 10,000 = 7,143$   
The constant 8,000 is a part of the formula and is used to add stability.  
This procedure is used on every injury.

### WORKERS' COMPENSATION EXPERIENCE RATING

Exhibit C

NAME OF RISK  
**ABC CORPORATION**

RISK IDENT NO **99-1234567**  
STATE **ANY**

EFFECTIVE DATE **07/01/81**

17

1	2	3	4	5	6	7	I	J	O	F	8	9
CODE			PAYROLL			CLAIM NUMBER					ACT. INC. LOSSES	ACT. PRIM. LOSSES
CARRIER	99999		POLICY NO. 77 77 77			EFF-DATE	07/01/77				EXP-DATE	07/01/78
3507			2,807,260			77-0024	1	0			20,000	7,143
7380			93,870			78-0006	5	F			12,847	6,163
8742			127,430					*			9,871	9,871
8810			425,480									
POLICY-TOTAL			3,454,040	( SUBJECT PREMIUM = 110,529 )							42,718	23,177
CARRIER	99999		POLICY NO. 78 78 78			EFF-DATE	07/01/78				EXP-DATE	07/01/79
3507			3,232,201			78-0027	5	F			9,477	5,423
7380			102,618			78-0034	5	0			3,600	3,103
8742			135,368					*			13,243	13,243
8810			462,375									
POLICY-TOTAL			3,932,562	( SUBJECT PREMIUM = 125,842 )							26,320	21,769
CARRIER	99999		POLICY NO. 79 79 79			EFF-DATE	07/01/79				EXP-DATE	07/01/80
3507			3,868,379			79-0001	2	0			62,500	8,865
7380			107,322			80-0002	5	F			4,826	3,763
8742			132,507					*			5,974	5,974
8810			502,408									
POLICY-TOTAL			4,610,616	( SUBJECT PREMIUM = 142,008 )							73,300	18,602
						20					18	19
(A)	(B)	(C)	(D)	(E)	(F) ACTUAL EXCESS (G-H)	(G)	(H)					
					78,790	142,338	63,548					

\* Total by Policy Year of all cases \$2,000 or less  
# Limited loss

PAGE NUMBER ►  
DATE ►  
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	(10) PRIMARY LOSSES	(11) STABILIZING VALUE	(12) RATABLE EXCESS	(13) TOTALS	(14) EXP MOD
ACTUAL ►	(H)	(I) (C) - 20000 * (1-W)	(A) x (F)	(I)	(11) (J)
EXPECTED ►	(E)		(A) x (C)	(J)	

# Experience Rating Expected Losses

Now that we have our actual primary and excess losses, we need to obtain the expected losses for the insured. The actual losses will be compared with the expected losses to determine whether a credit (decrease) or debit (increase) modification is in order.

The ELR (21) is the Expected Loss Rate. It is the amount of expected losses for the classification for each \$100 of payroll. Therefore, to obtain the expected losses, we multiply the ELR times the payroll divided by \$100. Taking the first line on Exhibit D as an example, we have an ELR of 1.48 and payroll of 2,807,260. Then, the payroll divided by \$100 is 28,072.6 and:  $28,072.6 \times 1.48 = 41,547$ .

The 41,547 is entered in the Expected Losses column (23). The total for expected losses are shown at the bottom of the column (25). The D-Ratio (22) represents that portion of the expected losses which are expected *primary* losses (24). We simply multiply the expected losses times the D-Ratio to get the expected primary losses. For example:  $41,547 \times .55 = 22,851$ . The total for expected primary losses is shown at the bottom of the column (26). The *expected excess* losses (27) are then obtained by subtracting from the total expected losses (25) the expected primary losses (26).

Classification	ELR (21)	D-Ratio (22)	Expected Losses (23)	Expected Primary Losses (26)	Expected Excess Losses (27)
...	1.48	0.55	41,547	22,851	18,696
...	...	...	...	...	...
TOTAL			25	26	27

Exhibit D

WORKERS' COMPENSATION EXPERIENCE RATING

NAME OF **21.22**  
AFC CORPORATION

**23 24**  
STUDENT NO 99-1234567  
ANY

EFFECTIVE DATE 07/01/81

1	2	3	4	5	6	7	8	9	10	
CODE	ELR	RATIO	PAYROLL	EXPECTED LOSSES	EXP. PRIM. LOSSES	CLAIM NUMBER	IJ	F	ACT. INC. LOSSES	ACT. PRIM. LOSSES
CARRIER 99999			POLICY NO.	77 77 77		EFF-DATE	07/01/77		EXP-DATE	07/01/78
3507	1.48	.55	2,807,260	41,547	22,851	77-0024	1	0	20,000	7,143
7380	1.04	.46	93,870	976	449	78-0006	5	F	12,847	6,163
8742	0.21	.43	127,430	268	115			*	9,871	9,871
8810	0.08	.52	425,480	340	177					
POLICY-TOTAL			3,454,040	( SUBJECT PREMIUM = 110,529 )					42,718	23,177
CARRIER 99999			POLICY NO.	78 78 78		EFF-DATE	07/01/78		EXP-DATE	07/01/79
3507	1.48	.55	3,232,201	47,837	26,310	78-0027	5	F	9,477	5,423
7380	1.04	.46	102,618	1,067	491	78-0034	5	0	3,600	3,103
8742	0.21	.43	135,368	284	122			*	13,243	13,243
8810	0.08	.52	462,375	370	192					
POLICY-TOTAL			3,932,562	( SUBJECT PREMIUM = 125,842 )					26,320	21,769
CARRIER 99999			POLICY NO.	79 79 79		EFF-DATE	07/01/79		EXP-DATE	07/01/80
3507	1.48	.55	3,868,379	57,252	31,489	79-0001	2	0	62,500	8,865
7380	1.04	.46	107,322	1,116	513	80-0002	5	F	4,826	3,763
8742	0.21	.43	132,507	278	120			*	5,974	5,974
8810	0.08	.52	502,408	402	209					
POLICY-TOTAL			4,610,616	( SUBJECT PREMIUM = 142,008 )					73,300	18,602
			<b>27</b>	<b>25</b>	<b>26</b>					
(A)	(B)	(C) EXPECTED EXCESS (D-E)	(D)	(E)	(F) ACTUAL EXCESS (G-H)	(G)	(H)			
		68,699	151,737	83,038	78,790	142,338	63,548			

\* Total by Policy Year of all cases \$2,000 or less  
# Limited loss

PAGE NUMBER ▶

DATE ▶

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	(10) PRIMARY LOSSES	(11) STABILIZING VALUE	(12) RATABL EXCESS	(13) TOTALS	(14) EXP MOD
ACTUAL ▶	(H)	(I) - 20000 x (1-W)	(A) x (F)	(I)	(11)(J)
EXPECTED ▶	(E)		(A) x (C)	(J)	

# Experience Rating Modification Factor

We are now ready to calculate the experience modification factor. The actual (19) and expected (26) primary losses are entered in the appropriate boxes at the bottom of the page.

The "W" factor (27) is the weight which is given to the excess losses. The complement of "W" or "1-W" is assigned to the expected excess losses to obtain the *Stabilizing Value*. "W" is a small percentage for small insureds and increases as the size of the insured increases. The *Stabilizing Value* (28) is calculated by adding 20,000 to the expected excess and multiplying by (1-W).

The Ratable excess is obtained by multiplying the "W" value by the actual and expected excess losses.

$$(29) \text{ Actual Ratable Excess} = .19 \times 78,790$$

$$(30) \text{ Expected Ratable Excess} = .19 \times 68,699$$

The total ratable losses used in the calculation are obtained by adding across and are equal to 150,364 (31) for actual losses and 167,937 (32) for expected losses. We derive the experience modification by dividing actual losses by the expected losses or  $150,364 \div 167,937 = .90$ .

This .90 is applied to the employer's manual premium at the renewal, effective 7-1-81.

ACTUAL	19	78,790	29	31
EXPECTED	26	68,699	30	32

**WORKERS' COMPENSATION EXPERIENCE RATING**

**Exhibit E**

NAME OF RISK: ABC CORPORATION

RISK IDENT NO 99-1234567  
STATE ANY

EFFECTIVE DATE 07/01/81

1 CODE	2 ELR	3 D-RATIO	4 PAYROLL	5 EXPECTED LOSSES	6 EXP. PRIM. LOSSES	7 CLAIM NUMBER	8 IJ	9 ACT. INC. LOSSES	10 ACT. PRIM LOSSES	
CARRIER 99999			POLICY NO.	77 77 77		EFF-DATE	07/01/77	EXP-DATE	07/01/78	
3507	1.48	.55	2,807,260	41,547	22,851	77-0024	1 0	20,000	7,143	
7380	1.04	.46	93,870	976	449	78-0006	5 F	12,847	6,163	
8742	0.21	.43	127,430	268	115		*	9,871	9,871	
8810	0.08	.52	425,480	340	177					
POLICY-TOTAL			3,454,040	( SUBJECT PREMIUM = 110,529 )				42,718	23,177	
CARRIER 99999			POLICY NO.	78 78 78		EFF-DATE	07/01/78	EXP-DATE	07/01/79	
3507	1.48	.55	3,232,201	47,837	26,310	78-0027	5 F	9,477	5,423	
7380	1.04	.46	102,618	1,067	491	78-0034	5 0	3,600	3,103	
8742	0.21	.43	135,368	284	122		*	13,243	13,243	
8810	0.08	.52	462,375	370	192					
POLICY-TOTAL			3,932,562	( SUBJECT PREMIUM = 125,842 )				26,320	21,769	
CARRIER 99999			POLICY NO.	79 79 79		EFF-DATE	07/01/79	EXP-DATE	07/01/80	
3507	1.48	.55	3,868,379	57,252	31,489	79-0001	2 0	62,500	8,865	
7380	1.04	.46	107,322	1,116	513	80-0002	5 F	4,826	3,763	
8742	0.21	.43	132,507	278	120		*	5,974	5,974	
8810	0.08	.52	502,408	402	209					
POLICY-TOTAL			4,610,616	( SUBJECT PREMIUM = 142,008 )				73,300	18,602	
			(A)	(B)	(C) EXPECTED EXCESS (D-E)	(D)	(E)	(F) ACTUAL EXCESS (G-H)	(G)	(H)
			019		68,699	151,737	83,038	78,790	142,338	63,548
* Total by Policy Year of all cases \$2,000 or less										
# Limited loss										
PAGE NUMBER ▶										
DATE ▶										
ER 1 (80) REV 9 80										

**27**

**19**

**29**

**31**

ACTUAL ▶	(H) 63,548	((C) - 20000) × (I-W) 71,846	(A) × (F) 14,970	(I) 150,364
EXPECTED ▶	(E) 83,038	71,846	(A) × (C) 12,053	(J) 167,037

**25**

**28**

**30**

**32**

(14) EXP MOD (I)/(J) 0.90

Chapter 12

In addition to the... for the... to be... of... Business... and the... of...

PART III: RESEARCH

The... of... the... of... about... of... and... of...

The... of... in... of... of...

The... of... and... of...

The... of... in... of...

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## Chapter Eight - Planning the Research

In doing a project, what is relevant to the problem to be studied and what methods to be used to arrive at conclusions must be decided. The problem facing Business XYZ is the high cost of workers' compensation insurance and the hope is that some way can be found to reduce the cost.

Fred N. Kerlinger (1986) studied research and the foundations of behavioral research. This project cannot be done in an experimental way, so Kerlinger's definition of nonexperimental research applies to the way this study must be conducted. He says:

Nonexperimental research is systemic empirical inquiry in which the scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulable. Inferences about relations among variables are made, without direct intervention, from concomitant variation of independent and dependent variables. (348)

The study can only research the data available for Business XYZ at this time with conclusions drawn from the variables and relations as they exist. Suggestions for



controlling the escalating cost of workers' compensation can be made but only a long-term study can determine the effectiveness of these suggestions for Business XYZ.

Besides studying Business XYZ's data, other companies can be studied to see which ones have begun programs to reduce illness and injury in the workplace. Looking at the experience of other companies can lead to plans which could assist Business XYZ in solving its problems with costly workers' compensation insurance premiums. Investigating what other studies have concluded can be an asset to this study.

Chelius in 1979 published a study where he found inexperienced workers suffered a disproportionately higher rate of injury. Does Business XYZ have a high turnover in personnel and are the personnel experienced with the task they are assigned to do? Is data available at Business XYZ to study if length of employment is a factor in worker injury?

Blue collar workers suffer 4-5 times as many accidents as white collar workers according to Root and Sebastian (1981). Are the blue collar workers at Business XYZ more prone to injury than the white collar workers? Does this same rate of injury hold true for Business XYZ? Should safety programs be geared to those workers?

Richard B. Victor (1982) studied California workers' compensation claims and concluded that 24 percent of

workers' compensation claims for a typical firm in California are due to back injury. Richard Chapel (1987) published an article stating that over one million people in the United States are disabled by back injury and the compensation costs related to these injuries are six billion dollars annually. Stover Snook, an official at Liberty Mutual Insurance Company, was quoted in Chapel's article as saying his company "pays out one million dollars per working day on back pain claims." Other relevant statistics given by Chapel are that the rate of disabling back pain has grown 14 times faster than the population and that once a person has had a low back pain incident, he/she is four times more likely to have recurrences.

Chapel also includes a study done by the University of Vermont that identified the following 3 factors as causing back problems in the workplace:

- heavy lifting
- poor working posture
- inadequate seating.

Vibration can also cause physical damage to the spine. The vibration resulting from a person riding on a tractor or other vehicle can lead to muscle fatigue. If a person tries to lift after being subjected to repeated vibrations, the muscles are weakened and back strain can result. After reviewing the experience of some other studies, a review of back injuries at Business XYZ can

tell if back problems are significant in raising workers' compensation costs for this company.

Business XYZ is not alone in experiencing increased workers' compensation costs. Carey W. English, in an article in the U.S. News and World Report (May 1984), states "skyrocketing costs of insurance for on-the-job injuries to workers are fueling a drive by employers to revamp the system." (80) English quotes John Antonakes, vice president and manager of workers' compensation claims for Liberty Mutual Insurance of Boston, saying premium costs have quintupled in the past decade. Business XYZ's premium costs (see Table 1-1, page 3) increased more than 8 times in the past decade. Of course exactly which 10 years Antonakes is using to make his statement is not mentioned. The article was published in 1984. Business XYZ's premiums experienced a tremendous jump in 1984 and 1985. If Antonakes's figures did not include those years, the increases experienced by other firms could also be more than quintupled when taking 1984 and 1985 into account.

Business Week, in an editorial "The Corporate Rx for Medical Costs" (1984), wrote about nine major corporations in the Cleveland area doing a study to determine which hospitals were most cost-efficient to use. Companies and insurers are seeking more information about local health care providers and comparing charges made by these providers.

Another factor relevant to controlling costs according to the Business Week article was detecting fraud. The Employee Benefit Research Institute reports that 10-15 percent of dollars spent by companies on health care may actually be paid on fraudulent claims. Insurers are becoming more aggressive in detecting fraud and the results are encouraging. Aetna Life & Casualty caught \$1.1 million dollars in fraudulent claims. The company brought 98 cases to court which resulted in 98 convictions. Blue Cross-Blue Shield won all 86 cases of the 86 cases that company prosecuted and brought to completion.

Does Business XYZ have any questionable claims against workers' compensation that might be fraudulent? Have the most cost-effective ways to treat injuries been investigated?

In studying the problem as it exists at Business XYZ, there are many avenues to investigate to determine why the costs are escalating. Data needs to be obtained in the following areas: types of injuries, groups of employees suffering the most injuries, safety programs, where are employees treated for injury and at what cost, attitudes toward on-the-job injury on both supervisory and employee levels, and systems to detect fraud.

The next chapter records the data found for the areas identified for investigation.

## Chapter Nine - Data for Business XYZ

To obtain data, the workers' compensation records and accident reports for Business XYZ were researched.

Some of the company records on types of injuries were available. Other records regarding insurance settlements for the years 1980-1982 were unavailable because the data had not been retained when an old administrator was asked to leave in 1982.

Two major contributing factors to workers' compensation costs are incidence rates of injury and the cost of treating injury. Within this chapter, the data will be analyzed in these primary areas.

### Incidence of Injury.

Looking at the data available can give statistics on how many accidents occur and general areas of the body most affected. Causes of the injuries can be investigated.

What parts or areas of the body are the most likely to be injured at Business XYZ? The body areas will be classified according to the following areas: arms, back, eyes, feet & ankles, hands (includes fingers and wrists), head, legs, neck, skin, heart attacks/heart stress, insect stings/bites, others. Table 9-1 lists the occurrences.

Table 9-1.

## Reported Injuries Classified By Part of Body Affected

	80	81	82	83	84	85	86	Total
Arms	2		3	1	2	2		10
Back	3	3	7	7	7	4	1	32
Eyes	5	2	4	1	3	2		17
Feet & Ankles	2	8	4	4	2	4	3	27
Hands, Fingers	12	11	8	5	9	6	1	52
Head	4		1		2	1	1	9
Legs	3	6	2		1	4		16
Skin	5	1	2		2	1		12
Neck	2	1						3
Heart Attack/Stress		1	1					2
Insect Stings/Bites		1	1	1		1		4
Other		1		5	1	2		9
Totals	==	==	==	==	==	==	==	===
	38	34	33	24	29	27	6	193

Looking at the injuries reported at Business XYZ, injuries to hands, wrists, and fingers are most prevalent followed by back injuries. The hand injuries involved many cuts or injuries due to smashing fingers by hitting them with objects or smashing the hand in a door. The hand injuries happened to housekeepers, maintenance men, food preparers, biology assistants, and security people.

Back strain or pain due to lifting or overexertion was the next most commonly reported work-related problem. This finding is consistent with articles and information being published across the country.

That feet or ankles are the next most common areas affected by injury is consistent with the large number of steps and elevations found on the grounds of this business. Most buildings have no elevators and sprains often occur when people are hurrying up and down stairs and miss a step.

Eye injuries rank next in occurrence. Most of the injuries were due to dust or other irritants entering the eye. No eye injuries resulted in permanent damage or loss of sight but an insurance rating adjuster would consider the possibility that such an injury could happen. Whether employees were wearing safety glasses is important. From the description of the injuries and how they occurred, it is reasonable to assume most of the objects entering the eye could have been prevented by wearing safety goggles. In 1983, there was only one eye

injury. According to Wayne Daugherty, former director of safety at Business XYZ, safety programs were implemented that year. A personal interview with the employee who suffered the eye injury revealed that he was not wearing safety goggles even though he had been instructed to use them while mowing.

The leg injuries were varied. Broken legs, twisted knees, hematomas, and lacerations to the leg were some of the injuries recorded. Like the foot and ankle injuries, many seemed to result from employees falling when in a hurry or an employee misusing equipment in some way.

The injuries to the skin resulted from poison ivy or reactions to chemicals in cleaning agents.

Some of the injuries included in the "other" category were a hernia, burns to the body, smoke inhalation, and broken glasses.

Looking at the accident reports revealed that the most common causes of injury were falls, dropped objects, improper lifting, and mishandling equipment. Insect stings and spider bites also accounted for injury and loss of time.

Besides the incidence of injury, the disability resulting from injury is significant in adding to the cost of workers' compensation. If an employee cannot work, compensation for the loss of income is awarded to the employee. Some data on the amount of days away from the job is available. Table 9-2 shows the amount of days



lost from work by injury categories.

Table 9-2.

Days Lost by Injury Category  
For Business XYZ

	80	81	82	83	84	85	86	Total
Arms			9					9
Back	14	4	28	3	7	53		109
Eyes	2			1				3
Feet & Ankles		16	9	7	2	25	5	64
Hands, Fingers	12	5	2		8	8		35
Head	2				7		3	12
Legs	2	32+			5	13		52+
Skin								
Neck								
Heart Attack/Stress			+ 7					7+
Insect Stings/Bites						9		9
Other				39	20			59
Totals	32	57+	46	59	49	108	8	359

The (+) indicates the exact number of days lost from work is unknown. The amount is greater than the number shown.

For Business XYZ, the number of days spent away from work resultant from injury are greatest due to back problems. Almost 30 percent of the time lost from work was due to back injuries.

Loss of the use of legs also kept employees away from work. Feet and ankle injuries were the third most disabling injury.

While injuries to the hands and fingers were most common, the injuries usually were minor and did not require much time away from work.

Several years of data on total number of days lost from work per year were located. The data is presented in Table 9-3 on the following page. A (+) following a number in the table indicates that more days were lost but the exact amount of days was unavailable.

1972	23	20
1973	24	22
1974	27	22
1975	27	22
1976	7	8

Table 9-3.

Annual Lost Work Days Due to Work-related Injury  
For Business XYZ

Year	Accidents Reported	Days Lost
1972	10	26
1973	8	18
1974	8	57
1975	2	0
1976	6	121
1977	22	13+
1978	37	177
1979	21	23
1980	38	32
1981	34	57+
1982	33	46
1983	24	59
1984	29	49
1985	27	108
1986	7	8

Treatment of Injuries.

Another aspect in the control of workers' compensation costs is the method chosen for treatment of injuries. Like the corporations in Cleveland that were studying the cost-efficiency of hospitals in the area, it behooves a business to check the charges made for care given to employees. What types of claims are the most costly in terms of medical care? Looking at the loss record received from the insurance carriers reveals some costly claims. Only records for the years 1982 through 1985 were available. See Table 9-4 which follows on the next two pages.

Year	Description	Amount	Notes
1982	100	Hand	120.00
	101	Hand	200.00
	102	Hand	100.00
	103	Hand	100.00
	104	Hand	100.00
	105	Hand	100.00
	106	Hand	100.00
	107	Hand	100.00
	108	Hand	100.00
	109	Hand	100.00
1983	110	Hand	100.00
	111	Hand	100.00
	112	Hand	100.00
	113	Hand	100.00
	114	Hand	100.00
	115	Hand	100.00
	116	Hand	100.00
	117	Hand	100.00
	118	Hand	100.00
	119	Hand	100.00

Table 9-4.

Loss Report For Business XYZ				
YEAR	CLAIM	DESCRIPTION	AMOUNT	STATUS
1982	82A	Stepped on nail	\$ .00	C
	82B	Fell down stairs	3288.60	C
	82C	Slipped on wet floor	1692.20	C
	82D	Fell on wet steps		Open
	82E	Slipped	128.65	C
	82F	Hit leg with chain saw	1521.37	C
1983	83A	Back strain; heavy lifting	.00	C
	83B	Fell down steps	272.00	C
	83C	Nail in back	71.55	C
	83D	Dust in eyes	45.00	C
	83E	Lower back; heavy lifting	207.13	C
1984	84A	Glass in eye	.00	C
	84B	Cut finger	167.25	C
	84C	Cut hand	238.50	C
	84D	Foot; dropped pipe	398.51	C
	84E	Reaction to cleaner	88.65	C
	84F	Burn to upper torso	187.00	C
	84G	Burns; coffee spilled	641.26	C
	84H	Muscle strain; lifting	1074.50	C
	84I	Finger	585.00	C
	84J	Cut arm	23.00	C
	84K	Tripped over box, bruise	133.00	C
	84L	Thumb	197.80	C
	84M	Broken toe	174.54	C
	84N	Sliced finger nail	.00	C
84O	Fell on icy steps	384.50	C	
84P	Twisted back	432.77	C	
1985	85A	Cut hand	163.70	C
	85B	Slipped on snowy steps	1885.71	Open
	85C	Dizzy spell	.00	C
	85D	Auto acc.; cuts & bruises	190.30	C
	85E	Auto acc.; bruises	20.00	C
	85F	Metal in eyes; welding	?	Open
	85G	Slipped; twisted knee	?	Open
	85H	Fell from chair	.00	C
	85I	Cut finger	279.95	C
	85J	Cut finger	277.28	C
	85K	Poss. heat stroke	37.50	C
	85L	Hit ankle on door	959.53	C
	85M	Finger	245.00	C

Table 9-4. (cont.)

YEAR	CLAIM	DESCRIPTION	AMOUNT	STATUS
	85N	Acid burns to hands	156.37	C
	85O	Insect bite	1316.16	C
	85P	Fell down stairs	585.00	C
	85Q	Walking; sprained foot	148.00	C
	85R	Fell down steps	298.24	C
	85S	Slipped on steps	292.44	C
	85T	Tripped over door mat	150.92	C
	85U	Fell against pipe	1424.45	C
	85V	Electrical shock	152.65	C
	85W	Back & neck; cleaning	?	Open
	85X	Auto acc.; wrist	205.24	C
	85Y	Slipped on wet floor	?	Open
	85Z	Scratched arm	6.75	C
	85AA	Hip injury	?	Open
	85BB	Fell from chair	?	Open
	85CC	Paper cut to eye	?	Open

Reviewing the 1982-1985 claims shows the following:

1982. No record was available to see how Claim 82B was treated. The injury to the claimant was a bruised elbow and a gash in the skull. Based on this writer's experience as a registered nurse and health administrator, one could expect a physician to admit the employee to the hospital for evaluation of the head injury. Emergency Room (ER) services, diagnostic X-rays, possible hospitalization for the head injury and follow-up could easily add up to \$3288.60.

Claim 82C states the injury was a bruised right and left arm. Without a medical record available, it is difficult to see how bruises cost \$1,692.20.

Claim 82F indicates the leg was cut by the chain saw. \$1,521.37 seems reasonable for surgical repair of the cut, X-rays, and follow-up.

The most expensive claim in 1982 was claim 82G. Records indicate a back strain was treated by a chiropractic physician for \$4,526.80.

1983. Few claims were paid by insurance in this year. 1983 was the year safety programs were more extensively utilized than in previous years. Of the 24 injuries reported, only five required more treatment than basic first aid. Claim 83A was disallowed by the workers' compensation carrier.

Claim 83E was for back strain. One cannot know the

extent of the injury compared to claim 82G but \$207.13 was the amount charged by a neurosurgeon M.D. to treat the back strain in claim 83E. Compare this to the \$4,526.80 charged for a back strain in claim 82G.

1984. The number of claims paid by insurance in 1984 was 16, quite an increase from 1983. The safety programs stopped in 1984 due to some personnel changes. Only one claim exceeded \$1,000 in cost. Claim 84H was for \$1,074.50. It was for a muscle strain from lifting treated by a chiropractic physician.

The next most costly claim was for burns to the body from a coffee urn spilling on an employee. \$641.20 covered the ER treatment as well as the employee's loss of 20 days work while recuperating.

Claim 84I was a smashed finger from a door. Costs were \$585.00 and the finger was treated in the ER. No time was lost from work.

Another employee twisted his back and was treated by an M.D. orthopedic surgeon for \$432.77. The injury listed was "strained back", the same as claim 84H mentioned above.

Two other similar cases had different costs. One employee dropped a pipe on his foot. He was treated at the hospital ER for \$398.51. Another employee dropped a door on his foot and suffered a broken toe. He was treated at MedFirst for \$174.54.



1985. Several cases were left open in 1985. This causes a significant amount of money to be left in reserve by the insurance company and can drive up the premium cost for insurance.

Cases paid by insurance numbered 20. Eight claims still remain open. Employees often refuse to settle and accept the case as closed because they fear further difficulties resulting from the injury. Claim 85W and claim 85Y both involve back injuries and are open. The final dollar amount awarded on those cases is unavailable as of this writing.

Of the settled cases claim 85B and claim 85U cost the most in medical costs and both cases involved the back. Claims 85B, 85U, and 85Y were back injury cases treated by orthopedic surgeons from the same group of physicians.

1986. The costs paid by insurance for 1986 were unavailable as of this writing.

The dollar amounts paid by insurance carriers to medical providers and employees for workers' compensation are shown in Table 9-5.

Table 9-5.

## Losses Paid by Insurance for Business XYZ

1982	\$11,157.62 + 1 open case
1983	595.68
1984	4,726.28
1985	8,795.19 + 8 open cases

These were the amounts available to the researcher when this study began. Amounts paid in 1986 for claims filed in 1985 are not shown in the above figures. Some 1985 cases were closed in 1986 and 1987. The settlement amounts would be calculated in the 1985 losses for the purpose of determining new premium rates.

Injuries by department.

As mentioned earlier some safety programs were presented to the maintenance department employees in 1983. To target what groups need injury prevention programs, it can be helpful to know what departments have the highest rate of injury. Table 9-6 gives that type of data for the years 1979 through 1986.



In doing research of writings and findings about worker injury, Chelius (1979) was quoted as finding inexperienced workers suffered more injury. Were new employees more likely to be injured than employees who had worked at Business XYZ for several year? Table 9-7 shows data collected concerning the length of time an employee had worked at Business XYZ before being injured.

Data was not available on how long the person had worked at Business XYZ for every injury so a statistical study of these numbers cannot be completely accurate. Of the 143 cases where information was available, 64 injuries or 44.8 percent of the injuries occurred to people working at Business XYZ for less than one year. Of the people working one year or more, 70 injuries occurred.

Further evaluation of these numbers and the data of this chapter will be presented in subsequent chapters.

Table 9-7.

Length of Time Employee Worked at Business XYZ  
Before Injury Occurred

1980

TIME	1wk	3wk	1mo	2mo	3mo	4mo	5mo	6mo	8mo
#EMPLOYEES	2	1	2	5	2	1	1	2	2

TIME	1yr	2yr	3yr	5yr	9yr
#EMPLOYEES	2	1	1	1	1

1981

TIME	2wk	1mo	2mo	3mo	4mo	5mo	6mo	7mo	9mo
#EMPLOYEES	2	1	3	3	1	4	2	1	3

TIME	1yr	5yr	6yr	8yr
#EMPLOYEES	7	1	2	1

1982

TIME	2mo	3mo	7mo	9mo	10mo	11mo
#EMPLOYEES	1	1	1	1	3	1

TIME	1yr	2yr	4yr	5yr	6yr	7yr	8yr	18yr
#EMPLOYEES	9	6	2	2	1	1	1	1

1983

TIME	3mo	6mo	11mo	1yr	2yr	3yr
#EMPLOYEES	2	3	2	5	6	4

1984

TIME	3da	1mo	2mo	3mo	4mo	8mo	9mo
#EMPLOYEES	1	1	3	1	1	3	1

TIME	1yr	3yr	4yr	6yr	10yr	14yr	17yr	19yr
#EMPLOYEES	1	8	1	1	1	1	1	1

## Chapter Ten - Data and Research Supports Hypothesis

At the end of August 1985 when administration became concerned about the high cost of workers' compensation at Business XYZ, the Director of Campus Health at Business XYZ became active in working with department supervisors to find ways to reduce injuries and costs. Policies were established for treatment of injuries. All injured workers, if injury was not life-threatening, were to report first to the Campus Health Center before seeking medical care off-campus. An alternative plan of action was put in place for times when the campus nurse was not available. For life-threatening emergencies, 911 was to be called. Letters were sent to supervisors with directives for treatment of work injuries.

Individuals coming to the Campus Health Center received instruction on safe lifting and work habits.

In March 1986, a physical therapist gave a training session on prevention of back injury. Attendance was mandatory for all maintenance personnel. In May 1986, the director of the Campus Health Center presented a talk to maintenance workers on prevention of heat cramps, heat exhaustion, and heat stroke. Posters stating the symptoms and treatment of the three overheating conditions were placed where maintenance personnel could see them.

Maintenance supervisors became active in promoting

safety. Employees mowing the ground were required to wear safety goggles. New and old employees were reminded to lift carefully and properly.

First aid measures were made available to employees. Antiseptic cleanser, bandaids and sterile coverings were kept in key locations. Special dispensers to dispense one bandaid at a time were installed in the food service department to prevent the pilferage of bandaids that often left the old dispensers empty when a bandaid was needed for a work-related injury.

A special non-prescription solution to counteract the irritants in poison ivy was made available at the maintenance office and employees doing grounds work were instructed that the solution was available for use if they came in contact with poison ivy.

Preventative tetanus vaccinations were given to employees at the Campus Health Center when needed.

The emphasis on safety programs and preventative measures coincide with a much lower injury rate in 1986. The other year, 1983, mentioned earlier also was a year when special safety measures were stressed. The incidence of reported injuries in 1983 was the second lowest of the years studied. Reviewing Table 9-1 on page 77 shows the rates of incidence and demonstrates the years when safety programs were emphasized had lower injury rates.

Only one back injury claim was filed in 1986. That

claim was filed by a new employee who had not attended the back injury prevention program. The data from Table 9-1 indicates that a single back injury claim is a significant drop from previous years. By studying Table 9-2 (page 80), one can see 1986 is the first year that days of work were not lost due to back injury.

With back injuries accounting for approximately 30 percent of the time away from the job due to work-related injury, a loss of no days is a tremendous help in reducing costs due to absenteeism. Back injuries also contributed 37 percent to the loss amount paid by insurance carriers for Business XYZ. Reducing back injuries is significant in reducing costs of workers' compensation.

Another significant fact is that the program to prevent back injury was presented to maintenance personnel. No maintenance personnel filed a back injury claim in 1986.

Hand, finger and wrist injuries, the area of the body most likely to be affected according to Table 9-1 (page 77), also dropped to one reported injury in 1986. At least two injuries to the hand were treated by basic first aid at the Campus Health Center because tetanus boosters were available there for prophylactic treatment. These two injuries did not need to be seen by a physician for medical treatment because first aid was available on site. Since only first aid was needed, those two



injuries did not need to be reported to the insurance company for claims.

The supervisors of maintenance employees were active in promoting safety in 1986. Only one injury claim came from the maintenance department in 1986. That marked the first year since 1978 that maintenance did not record the highest injury rate at Business XYZ.

In addition to safety programs, employees were educated on how to use existing cleansing agents and a training session for housekeeping personnel was held whenever a new cleaning measure or cleansing agent was introduced. Use of protective gloves was encouraged when employees handled stronger chemicals.

Another significant fact gathered by looking at the data in Table 9-6 (page 90) is the drop in injuries to maintenance people in 1983. The injury rate was over 100 percent lower for maintenance personnel in 1983 compared to 1982. The number of injuries in the maintenance department from 1983 to 1986 never did exceed the 1982 level. The safety programs initiated for maintenance people in 1983 may have had an ongoing effect for the department.

Whether a disproportionate number of injuries occurred with new employees at Business XYZ is a factor that cannot be determined from the data available. To establish the proper proportions, the total number of employees working for one year or more and the total

number of newly hired employees working less than a year would need to be known for each year studied.

If five injuries occurred in employees working for less than one year and 10 injuries occurred in employees working more than one year, one would have to know how many people were employed in each group to know if the injury rate was disproportionate. Five injuries in a group of 10 new employees would account for 50 percent of that group. Ten injuries in a group of 60 people employed for more than a year would represent only 16 2/3 percent of that group. Even if the new group had five injuries compared to 10 injuries in the older group, the new employees would have a higher rate proportionately because of their smaller group size.

One interesting fact uncovered while looking at injury occurrence was that in one year one particular employee had four accidents resulting in injury. Over a three year period, that same employee had seven reports of injury. That employee no longer works at Business XYZ. If he did, special counseling might be indicated to see why he was having so many accidents.

In addition to being able to reduce the number of injuries requiring reporting, how an injury is treated has a bearing on cost.

Reviewing the data on medical costs of treating back strains shows chiropractic treatment to be more expensive than treatment by a neurospecialist or orthopedic

specialist. The back conditions treated by medical doctors (M.D.s) were less costly than the injuries treated by chiropractic physicians. Whether the conditions treated by chiropractic physicians were more extensive is not known but the injuries reported in the claims were all listed as "back strain".

Treatment of minor conditions in the hospital emergency room (ER) is also more costly than going to a physician directly. The basic cost for using the local hospital ER is \$46.00 plus \$31.00 for examination by the ER physician. X-rays and other diagnostic tests are charges in addition to the basic cost of \$77.00.

Going to a local clinic under an agreement set up through the Campus Health Center and a clinic physician saves on medical costs. The physician charges \$36.00 for the initial visit and examination - a saving of \$41.00 compared to the ER. The physician is a certified and licensed surgeon who can order X-rays and do minor surgery such as repairing cuts and lacerations at the clinic. X-rays taken at the clinic are less costly than the same X-ray taken at the hospital.

If the injury is severe, the employee is still taken to the hospital emergency room but most injuries do not require ER treatment and can be treated at a doctor's office or clinic.

Two comparable cases that reflect the difference in cost between the hospital ER and a clinic occurred in

1984. In both cases an object was dropped on a foot. In case 84D, the employee went to the ER to have treatment and X-rays. There were no reported broken bones but the cost was \$398.51. That same year in claim 84M, another employee dropped a door on his foot. He went to MedFirst for treatment and X-rays. He suffered a broken toe, and the total cost was \$174.54. To really compare costs, the medical records could be examined to see how many X-rays were taken and how the course of treatment may have varied. Those records were unavailable for this study.

Stepping through an ER case hypothetically shows where the unnecessary costs arise. First the cost of the Emergency Room is \$46.00. The next cost encountered is the cost of the physician examination. If the patient is treated and released, the patient must still be followed by a doctor other than the emergency room physician. The second doctor is an additional cost over the cost of the ER visit and procedures done. That cost is avoided at a clinic. The first exam usually costs around \$36.00 to \$40.00 because the bookkeeping process has to be started if the patient has never been seen at that facility before. The doctor's exam is included in that first visit. Follow up exams are usually less costly. In this writer's opinion and based on the cost record to date, ER care should be used for worker injury only in cases of severe trauma and life-threatening conditions. If a physician's care is available at a clinic or office, that

is the most cost-effective way to treat minor injuries that still require medical attention.

More aspects of the workers' compensation cost picture can be studied if more data were available. The total number of days lost from work is an area where more study could be done with more information. In 1981, an employee suffered a heart attack on the job that was considered compensable. The record on how many days the employee lost from work was lost when an administrative change occurred. That same year an employee suffered two broken legs and the record of the number of days lost for that case was also lost or destroyed. Having the exact amount of days for those two cases would make a more in-depth review possible. The days lost in 1985 will be more valid when the final settlements on the two open back injury cases come in with the exact amount of time recorded.

The data that is available does bear out the hypothesis that ways can be found to reduce workers' compensation costs.

The reduction of injury incidence has a definite bearing on premium cost. Setting up injury prevention programs and having supervisor involvement in stressing safe work practices in 1986 appears to have had an impact on the 1986 injury incidence. This should affect the 1987 and 1988 premiums by reducing them.

Doing more first aid at the Campus Health Center

allows employees to have injuries assessed. As mentioned in earlier chapters, state law does not require the reporting of injuries only requiring first aid. If the injury is not severe, the treatment can be done on site without sending an employee to expensive medical facilities for something only requiring first aid treatment. This lowers the incidence of reportable injury.

When medical care is needed, using the most cost-effective method of treatment can be done as evidenced by using a specified clinic for minor injuries. The physician being utilized is qualified in diagnosis and treatment of many work-related injuries. The physician refers the injured employee to orthopedic and other specialists when indicated. Setting up procedures for obtaining medical care can help reduce costs for treatment of injuries while still insuring care that treatment is readily available when needed.

As analyzed in the section of this project about experience rating for workers' compensation insurance (Chapter Seven), reducing the amount of accidents has the greatest effect on reducing workers' compensation expense. 1983 and 1986 demonstrates that the number of injuries can be reduced by making supervisors and employees safety-conscious.

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**PART IV: SUMMARY, CONCLUSIONS, RECOMMENDATIONS**

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## Chapter Eleven - Summary

When the high cost of premiums for workers' compensation insurance became a concern to the administration at Business XYZ, the question of whether something could be done about the escalating premium was asked. Reducing workers' compensation costs for Business XYZ required investigation into several areas to arrive at conclusions and recommendations.

Gaining a basic knowledge of the workers' compensation law in Missouri is important. After examining the law, it was ascertained that an insurance claim does not need to be made for minor injuries treated with first aid even if the first aid treatment is done by a physician or nurse. Neither does the state need to be notified for basic first aid cases. Some injuries in the past were not serious and could have been treated with basic first aid.

Learning how the experience rating system functions in calculating the insurance premium to be paid enables Business XYZ to see the areas that pushed up its premium costs. The number of injuries has greater bearing on insurance costs than the severity of the injuries. Reviewing the incident reports and the mandatory Bureau of Labor Statistics Logs and Summaries of Occupational Injuries and Illnesses for Business XYZ from 1979 through 1986 shows a high rate of accidents with reported



injuries occurring. 1984 had no severe or costly injuries but there were numerous minor injuries involving treatment that required reporting.

After looking through the records, some avenues for action become apparent. The number of injuries has to be reduced, competent but cost-effective medical care for injuries and illnesses is needed, and provisions for basic first aid on the jobsite can save needless reporting and claims.

In the process of reducing the incidence of injuries, investigation of the types of injuries that occur is one step. Hand and finger injuries occur most frequently followed by back injuries. Preventing hand and finger injuries involves making people more safety-conscious. The prevalence of back injuries is found in companies across the United States according to other published studies. A program stressing proper lifting and back care has coincided with a reduction in the incidence of reported back injuries at Business XYZ.

An ongoing attempt to change the attitudes of employees toward on-the-job injury has become a priority of management. Being careful while working and doing tasks safely is stressed to workers by management and Health Center personnel.

Besides categorizing types of injuries, targeting the departments with high injury rates helps in changing attitudes and developing safety programs for those key

problem areas.

Insurance information available shows Business XYZ had high primary losses (claims where costs were used in full for rating). Those losses gave the business an experience modification value greater than 1.0. That value is multiplied by the manual rating that would normally be given to a business. Therefore a value greater than 1.0 causes the insurance premium to increase at a greater than normal rate increase.

In addition to reducing the number of injuries, more cost-effective ways to treat injuries were found and are now available. Missouri law, at this time, allows an employer to select the physician for treating work-related injuries. Employees may go to their own physician for medical care but at their own cost. Business XYZ has an agreement with a physician at a local clinic to have workers injured on the job seen at that facility at less cost than going to the hospital ER. Of course, severe or life-threatening injuries are still treated at the hospital emergency room.

The use of the Campus Health Center at Business XYZ allows minor injuries to be treated with first aid and observation. While an accident report is filled out on all injuries, only those requiring more extensive medical care are to be reported.

Prevailing and changing attitudes are one factor in worker injuries that this project did not study

extensively. It is a contributing cause to increased costs and claims but to properly analyze and document attitudes can involve a major study in itself. A trend observed can be mentioned at this point. Business XYZ had been subjected to multiple lawsuits starting in 1982 due to some administrative personnel being asked to leave. It seemed to have a domino effect. More than once, comments such as "I'll just sue 'em," were overheard by supervisory personnel. Unnecessary trips for medical care may have resulted from fears of lawsuits in case an injury had occurred. Most supervisors and the campus nurse were reluctant to tell an employee to just rest or wait and observe the injured part after an incident and then be faced with an employee saying proper care was not given at a later date.

To what extent attitudes contribute to the problems that Business XYZ faces can be a matter of supposition for this project. As an opinion, one can say attitudes played a part in escalating the reported injuries but the concrete data is unavailable to support such a statement.

The purpose of this project was to find causes for the high cost of workers' compensation at Business XYZ and to investigate ways to reduce those costs. The project was general in its approach and attempted to present an overview of the workers' compensation situation as it existed at Business XYZ in the years 1980 to 1985.

Time was a limiting factor on the amount of research conducted. More in-depth study could be done on many facets mentioned in this project such as reviewing medical records in special cases or establishing completely accurate statistics on the amount of time lost due to categories of injuries. One could go into in-depth calculation of Business XYZ's insurance rating values if the weighting factors were known, but for the purpose of this study, knowing the reasons behind the higher experience modification values is more relevant to solving the problem. Moreover, consistent and detailed information was not available for a year-by-year comparison on a more statistical basis.

Data on injury incidence in 1986 became available as the project was in its completion phase. The 1986 data gave substance to the hypothesis that ways could be found to reduce workers' compensation costs at Business XYZ.

The data obtained did allow for some conclusions and observations which should help Business XYZ begin to solve its problems with excessive injuries and costs. These conclusions and suggestions will be the subject of the final two chapters in this project.

## Chapter Twelve - Conclusions

After reviewing the records for work-related injuries at Business XYZ and analyzing how the data gleaned from those records would be used in experience rating for insurance premiums, one major cause found for Business XYZ having high premium cost was the large amount of work-related injuries reported for this business. For more than one year in this study the actual primary losses exceeded the expected primary losses which gave Business XYZ modification values greater than 1.0. The small minor injuries costing less than two thousand dollars were calculated at full cost and raised the actual primary losses used for calculating insurance premiums.

Another causative factor in increased insurance premiums is the cost of medical care for the injuries. As stated above, the full cost of care on a minor injury is used for experience rating. The higher the cost of care, the higher the primary losses go. Finding less costly ways to treat minor injuries reduces the amount of primary losses, thereby reducing the calculated premiums for workers' compensation insurance.

The factors given above are in addition to the generally rising cost of insurance premiums due to the increasing cost of medical care nationwide. Rising hospital and physician fees contribute to premium cost

for all insureds so a certain amount of inflation in premium costs are expected. Business XYZ will have rising rates because all employers are experiencing rising rates.

What Business XYZ can do is keep its losses down and keep its experience modification factor below 1.0. Controlling the number of work-related injuries and the costs of treating those injuries will pay back in reduced insurance premiums.

Historically, the maintenance department experienced the greatest number of injuries in the past. This can be expected due to the nature of the work. However, after introducing measures to prevent back injuries, heat stroke, and other injuries, the number of injuries suffered by maintenance personnel dropped to one. The conclusion is that safety programs do work.

Supervisor attitudes toward safety for their employees is also important. Maintenance supervisors made attendance at safety programs mandatory and employees received pay while attending these meetings. Training sessions on the use of new chemicals paid off with no reported skin reactions due to irritation from cleaning agents after employees were properly instructed in their use and encouraged to use gloves when necessary.

Back injury prevention programs help reduce back injury. Business XYZ had no back injury claims from employees attending the training session on proper

lifting and back care. That finding corroborates experiences of other companies. Richard Chapel (1987) reported the Capitol Wire and Cable Company in Plano, Texas had back injuries in a 24-month period that cost \$191,549. In the 20-month period after implementing a back care program, costs were only \$7000.

Besides preventing back injuries, proper treatment of back injuries when they occur is important. Finding competent physicians to treat back injuries who treat the injury without just running up a high bill is a challenge. Chiropractic care proved to be more expensive than care given by medical doctors and doctors of osteopathy for Business XYZ. Comparisons on treating back injuries could involve a whole study in itself. One employee felt her chiropractor gave her more help than the M.D. who first treated her case. Back injuries were costly injuries for Business XYZ. Two open cases from 1985 are back injury claims where the employees lost many days of work. To keep back injury costs down, proper methods of treatment by competent physicians must accompany the goal of reducing injury.

The extent that attitudes added to the costs of workers' compensation is a matter of supposition. Conclusions drawn about attitudes in this study are a matter of speculation. Two pervading attitudes at Business XYZ must be examined.

First, attitudes of the supervisors and the campus

nurse mentioned earlier in Chapter 11 has a role in the treatment of injuries. If supervisors and nurses are afraid of lawsuits, they will send employees for medical care more readily. Because many minor injuries were being channeled to physicians for diagnosis, one conclusion is that not all cases sent to a physician needed to be submitted as an insurance claim. If the employee was sent for examination only to rule out any injury requiring further treatment, the physician could be paid directly by Business XYZ without submitting an insurance claim. If further medical treatment were required, the claim would then be submitted to insurance.

Secondly, the attitude of employees is important in controlling worker injuries and claims. Employees making only a minimum wage could have less incentive to work if they receive compensation money for being injured. Although the employee would only receive 2/3 of his normal earnings, it might be to his/her advantage not to work. Taxes, child care and transportation costs could offset the difference in pay especially if the employee was receiving a low wage before the injury occurred. Dr. Rodney Beals, head of orthopedics at a major hospital, was quoted in the article by Carey W. English as saying, "When income associated with disability comes close to equaling the income while working, treatment fails." The employee continues to harbor his injury because he has no incentive to get well and go back to work.



Some employees do not carry personal medical insurance. Those individuals are inclined to blame injuries and illnesses on work conditions in order to receive medical care for which they do not have to pay. Even those having insurance may try to claim an injury came from their job to avoid paying a deductible amount.

Employees need to be reminded to be careful. The thought of losing an eye or a finger makes most people try to do things safely. Employees should feel they are not only caring for themselves but also contributing to the whole picture. Being careful and safety-conscious keeps them healthy and able to live a normal life and they can help Business XYZ keep the cost of workers' compensation insurance down freeing money for raises. Corporate officers are not the ones who gain from balancing the budget at Business XYZ. Students coming to Business XYZ benefit due to lower tuition and boarding costs. Affordable education attracts the students who provide the jobs. It's a circle in which every employee can do his or her part.

Besides reducing premiums, less accidents and lost time will keep payroll costs down because new people and temporaries would not be needed as often. Savings will occur in the payroll and working conditions for the employees on-the-job are better because everyone knows and does their own job without the stress of having to cover the work of an absent employee.

Fraud was one issue not covered in this project because of lack of available data. To comment further on possible fraudulent claims would be solely done on the opinion of the researcher. One or two cases could be questioned because of time lags in the reporting of the claimed injury, but more extensive investigation would be required before one could substantiate a fraudulent claim.

The major contributory cause to the increased premium costs was the high incidence of injury accompanied by costly treatment. Factors causing the injuries were multiple but this project has identified some of the causes as well as implemented plans to reduce the number of reportable injuries while keeping employee welfare as a primary concern. Measures have been taken to secure cost-efficient, competent medical care for injuries that do occur. By 1988, the results should begin to show in reduced premium costs for workers' compensation insurance if safety programs and implemented plans continue.

## Chapter Thirteen - Recommendations

The foremost concern in the handling of workers' compensation claims should be the welfare of employees. Competent medical care for employees who are accidentally injured while working at Business XYZ should be readily available, but a major emphasis needs to be placed on preventing injury in the first place.

Workers' compensation should be overshadowed by safe work environments and the promotion of wellness in the workplace. Keeping an employee healthy and able to work has much more value and is less costly than compensating an employee for a permanent disability.

In conjunction with promoting safety, programs to enhance the health of employees will result in fewer injuries. A healthy employee will be less distracted by aches, pains, and malaise and better able to concentrate on the task to be done. Recognizing and controlling high blood pressure might prevent a recurrence of a job-related heart attack as occurred in 1980.

Employees with several accidents on record should be asked to talk to counselors. Is the employee having family problems, health problems, or difficulties with alcohol or chemical abuse? Qualified counselors are employed by Business XYZ. An employee should be allowed to arrange for a confidential counseling session if needed. One or two hours spent with a counselor might

prevent a costly accident if the employee is not concentrating on what is being done at work.

Kenneth Williams (1986) observed that many companies are reaping monetary benefits from employee assistance programs (EAP). He states that Kimberly Clark reports it has experienced a 43 percent reduction in absenteeism and a 70 percent reduction in accidents after beginning an employee assistance program. Philips Petroleum figures its EAP saves that company \$8 million per year because of fewer accidents, less sick leave, and higher productivity. Using counseling and health services available at Business XYZ for employees as well as students would benefit everyone.

Beverly Ware (1987) writes about promoting workplace health programs stating "Without top management support there can be no program". She goes on to say "...a program will never become firmly institutionalized without the interest and commitment of employees". (3) These same statements hold true for health and safety programs at Business XYZ. More than one person need to be committed to reducing accidents and injury at Business XYZ because the business cannot afford to stop its programs when one or two key people involved in the program terminate employment. The programs need to be ongoing. Each individual employee needs to be safety-conscious regardless of whether the supervisor or administrators change.

Documented, set procedures and policies for treating employee injuries are advisable. Supervisors should have the name and number of the physician and clinic used by Business XYZ for employee injury readily available. Only when a clinic physician is unavailable or the injury is serious or life-threatening should the employee be sent to the hospital ER.

The Campus Health Center should be utilized as fully as possible within the legal limits of the medical personnel employed at the Center. The nurse should be able to refer employees for further medical or diagnostic examination as she deems necessary. Tetanus vaccine for boosters should be available on campus through the campus nurse. Tetanus immunizations are a public health measure and are given to prevent disease. Employees suffering from cuts or lacerations can be treated at the Campus Health Center if a nurse is available to clean and bandage the wound and administer a tetanus booster prophylactically, if indicated. The physician from the clinic who sees employees for more serious injuries can write a standing order for the immunization following the state public health guidelines.

Further investigation of available physicians for treatment of back injury would be of benefit. Because back injury can be costly and result in much lost work time, care must be given in finding a competent physician to treat back injuries. Besides providing adequate

medical treatment, a training session for preventing back injury should be given to all new employees who might be involved in lifting. The history of injuries at Business XYZ even showed an administrative officer had suffered a back injury so the program offering could be extended to other personnel interested in caring for their backs.

Should a back or other debilitating injury occur in the future, Business XYZ could also investigate enrolling the injured employee in a work-hardening program before allowing the injured employee to return to work. By simulating actual work conditions, these programs can accurately assess the person's capability to lift, bend and carry on with the tasks expected on the job. These programs can better determine whether a person can do a job than a physician's exam.

Some companies require pre-employment physicals. The value of using low-back X-rays in a pre-employment exam is questionable. X-rays in themselves can be detrimental to the health especially a low-back X-ray which can cause damage to gonads in men or women or cause damage to a fetus in a woman who doesn't know she is pregnant. Mark Rothstein (1985) states "The test [low-back X-ray] is simply inaccurate, and screens out too many people who are healthy and will never suffer from back injury while failing to detect those presymptomatic persons who really are at risk." Pre-employment physicals at Business XYZ requiring

low-back X-rays would be an unnecessary expense.

In lieu of pre-employment physicals, an employer can ask if a worker had ever filed a workers' compensation claim at a previous employment. Some companies ask questions about previous workers' compensation claims on employment applications. It is within the law to ask the nature of the injury when a claim was recent. If the injury was of the type that could preclude the person doing the job properly, the prospective employee can be asked to submit a physician's statement saying he/she is able to do the designated job. An employer would be wise not to hire a person with a history of back injuries to a work in a position where the back can be reinjured. Positions requiring long hours on a tractor or mower with vibration can damage the back as easily as lifting.

Business XYZ has been diligent in reporting its accidents and injuries. It should continue to be so. Some companies have been found remiss in reporting their work-related injuries to the state. The Occupational Safety and Health Administration (St. Louis Post-Dispatch, Feb.1987) is cracking down on the underreporting of accidents. Business XYZ should be accurate in its reporting on its logs (OSHA Form 200) to avoid any fines for underreporting. By implementing safety programs, the incidence of injury rate should drop and Business XYZ should be prepared to show the reasons

the rates have fallen if the numbers are questioned.

To avoid injury to workers unskilled at a particular task, it behooves Business XYZ to subcontract special projects to companies familiar with the task to be done. For example, roof repair can be done by a roofing company. Any injuries suffered by workers doing the project would be the liability of the subcontracting roofing company. A major roof repair is not considered an ongoing job in the nature of this business so the liability would not rest with Business XYZ. If a subcontractor is available for one-time repairs and maintenance projects, it could be advisable for Business XYZ to use the subcontractor rather than risk injury to one of the Business XYZ employees doing a job he or she is not skilled in doing.

Supervisor involvement in safety needs to continue at Business XYZ. Enforcing safety practices such as requiring grounds people to use safety goggles while mowing will reduce eye injuries. Scheduling lifting earlier in the day could be helpful so the employees' backs are not fatigued when lifting. For example, if some equipment needs to be moved and mowing or tractor work is scheduled to be done by the same person, have that person do the moving and lifting before riding a tractor or mower for several hours since vibrations tire back muscles.

Employees should be aware that the law reduces



compensation by 15 percent if the employee deliberately fails to use safety devices provided by the employer or if the employee does not obey a reasonable safety rule posted by the employer in a conspicuous place. Missouri Workers' Compensation Law, section 287.120 covers this aspect of compensation.

A reward system for a good safety record can also provide incentive for employees and supervisors to avoid accidents. Publish the departments with good safety records in the campus newsletter. Every month when the maintenance, security, food service, or housekeeping department has an accident-free record, give each member of the department a 50-cent gift certificate redeemable at the bookstore. The certificate can be redeemed for a soda or snack at once or an employee can accumulate certificates for a year and apply the \$6 toward any other purchase at the bookstore.

If Business XYZ has reduced injuries for a year, reward each full-time employee with a paid personal hour or hours for being accident-free. The employee can use the hour or hours as he/she wants with supervisor permission. The employee could take a long lunch hour to run an errand, come in later some morning, or leave early some afternoon. The time could be called personal safety hours.

Study of worker injury should continue at Business XYZ. Effectiveness of the safety programs can be

evaluated and adjustments made when needed. If injuries are reviewed every 6 months, patterns can be detected and measures taken to prevent recurrences before a whole year lapses and affects the premium rate.

Besides reviewing the injury pattern twice a year, a yearly evaluation of workers' compensation issues is imperative. Procedures may need to be changed. New physicians may be need to be contacted. A variety of safety programs should be presented at least quarterly to keep employees aware of safe work habits. These programs could be determined at the yearly evaluation meeting. The evaluation should be done by the vice-president of operations, the vice-president of finance, the director of personnel, the director of health services, and one or two supervisors designated by the vice-president of operations. These are the key people to administrate the process of reducing workers' compensation costs at Business XYZ, but the people who will benefit most are the employees and students.

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