AN ANALYSIS OF THE PHILOSOPHIES PROMPTING
GOVERNMENTAL INSURANCE PROGRAMS,
WITH SPECIAL REFERENCE TO ATOMIC RISK COVERAGE

DISSERTATION
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By
WILLIAM RANDOLPH BEATON, B. S., M. S.

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Approved by

[Signature]
Adviser
Department of Business
Organization
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CHAPTER I
INTRODUCTION AND STATEMENT OF PURPOSE

Introduction

One of the most significant developments of recent decades in terms of its effects on society and its impact on the commercial insurance industry has been the evolution of widespread governmental programs of insurance. The participation by government in the field of insurance in the United States dates back to an unsuccessful state fund for the guaranty of bank deposits in 1829,² but the movement did not assume importance in terms of scope and size until the twentieth century.

The first governmental programs were on the local and state levels. Three Torrens title insurance funds, designed to provide compensation to persons who were deprived of their rights in land, and four public property insurance funds were created between the years 1900 and 1905. Four bank guaranty funds, designed to protect depositors in state banks against losses due to bank failures, were established between 1906 and 1910. The enactment of workmen's compensation legislation in many

² New York Session Laws, 1829, Chapter 94.
states during the years 1911 to 1915 resulted in the creation of thirteen compensation funds. It was about this same time that many state legislatures faced the problem of providing public school teachers with pensions upon retirement, and twenty-four programs setting up funds for that purpose were established between the years 1911 and 1915.²

From these beginnings governmental participation in the field of insurance has expanded to include programs insuring the perils of war, old-age, unemployment, death, failure of borrowers to repay mortgage loans, physical damage to growing crops, occupational injury and disease, nonoccupational injury and sickness, automobile operation by financially irresponsible motorists, and, most recently, nuclear energy. Moreover, while a number of the earlier state funds have been rendered inoperative for various reasons,³ there has been a decided movement toward an


³ There were three basic reasons accounting for the termination of a number of earlier governmental programs of insurance on the state level. First, there was little public demand for the program because of certain defects in it which the public opposed, e.g., the Torrens title insurance funds. Second, the program was not established on a financially sound basis and quickly exhausted its funds in times of crises, e.g., state programs of assistance to the aged and unemployed. Third, the perils insured against under the program were eventually absorbed into a broader governmental program of insurance on the federal level, e.g., bank failures.
expansion, both in numbers and in scope, of governmental insurance programs.

Efforts to enact legislation designed to put government in the insurance business have at times provoked heated controversies between advocates and opponents of governmental enterprise. This was particularly true in the field of social security. In certain instances arguments have not been supported by facts and, frequently, the arguments have been motivated by purely selfish interests. Sound testimony has sometimes been discounted because of the social, political, and economic environment existing at the time. Legislation has been hastily passed without adequate consideration of all its social and economic implications, oftentimes ignoring experience developed through earlier programs.

Statement of Purpose

The basic purpose of this study was to discover the reasons which prompted the enactment of certain governmental programs of insurance. The focal point of the study was an analysis of the nuclear energy peril and the insurance problems created by this peril. The purpose of the analysis was to determine the reasons which prompted the federal government to enact legislation providing governmental indemnity for certain activities in the nuclear energy field. The purpose of the analyses of earlier governmental
programs of insurance was to provide a background for
determining the pattern of thought and factors which
influenced subsequent programs, particularly nuclear energy
loss indemnification.

Need for Study

Government insurance has attained considerable
importance in the United States. The national old-age and
survivors' insurance system is the world's largest insurance
program. State unemployment insurance laws cover more than
three-fourths of all industrial employees of the country.
Workmen's compensation laws provide the major economic
security program for occupational disability in all of the
states. Substantially all employees of the national govern­
ment and more than half of the state and municipal employees
are included in special retirement insurance systems. Four
states provide plans of insurance for temporary nonoccupa­
tional injury and sickness.

The movement toward governmental participation in
the field of insurance assumes additional importance in
view of the establishment of two new programs in the past
three years, namely, the Federal Flood Insurance Act of
1956, and, in 1957, Public Law 85-256, which provided the
statutory authority for government indemnity of certain
nuclear energy activities. In addition, numerous state
governments are facing the problem of whether to establish
some form of state program for the writing of automobile liability insurance. These developments in themselves suggest the need for a comprehensive study of the role of government in insurance enterprise.

In addition, the particular events leading to the enactment of governmental programs of insurance differed widely and often the underlying reasons for their establishment were obscured by irrelevant factors. Any inquiry into the philosophies prompting these programs will throw light on the exact role of government in the insurance field, and the outlook for further expansion, if any, in this field.

**Scope and Limits**

This study is concerned primarily with "philosophies," specifically the philosophies prompting the establishment of certain governmental programs of insurance. A philosophy seeks to present and relate the various factors and forces behind an occurrence in such a manner as to provide a rational explanation for the occurrence. The philosophy behind certain governmental programs of insurance, therefore, provides a basis for an understanding of why the program was enacted. It is this concept which constitutes the framework of the study.

A major portion of the study is devoted to the nuclear energy peril and its characteristics as they relate to the problem of insurance coverage. There are several
reasons for this: first, the peril is new, and because it is so closely tied up with governmental policy, it has been and continues to be the subject of extensive Congressional investigation, as well as private research and study to determine its extent and ramifications; secondly, the peril is the most recent to be covered by a governmental insurance program; and, third, it has once again raised the question about the need for governmental participation in the field of insurance. While the study includes an analysis of the philosophies of all the important governmental insurance plans in the United States, it is the nuclear energy insurance program which is given special attention and which promoted an expansion of the study to include other programs.

The portions of the study concerned with the nuclear energy peril are not intended to present a technical discourse on nuclear energy. It is beyond the scope of the study to delve deeply into such technical matters as biological, engineering, legal, and medical problems associated with this new field. Aspects of such matters are considered only to the extent that they bear on insurance problems and the establishment of a philosophy of governmental participation in atomic energy insurance.

It should be kept in mind that activities in the nuclear energy field are increasing rapidly and changing frequently. Moreover, information about this field remains
somewhat restricted, making only limited statistical data available.

The study is concerned only with programs in the United States. Programs of foreign countries are mentioned only to the extent that they shed light upon developments in the United States.

Where programs have been established on local and state levels, such as workmen's compensation and unemployment insurance, consideration is given to over-all philosophy rather than to the individual programs of respective states. Individual attention to each state program would add little of significance to the study, because the basic factors prompting each program were the same.

Since the study is concerned primarily with philosophies behind governmental insurance programs, no presentation has been made of the administrative and operative aspects of the programs, such as benefit levels, qualification requirements, financing, and related issues. Also, the study is not to be considered as a critique on the effectiveness of the various plans in accomplishing their avowed purpose.

**Method of Investigation**

It is only logical that a study of this nature be based largely upon primary sources of information in view
of the fact that the governmental programs considered have already been established. Published material concerning these programs is voluminous, with the exception of the nuclear energy field. For the most part, however, the material is concerned with the operational aspects of the programs, especially issues regarding organization, finance, and administration of particular programs.

The chief sources of information used in the study were the hearings, studies, and reports of Congressional committees to whom original legislative proposals were referred for action. The Congressional Record was especially useful in studying the attitudes of legislators toward proposed federal programs. The published views and analyses of advocates and opponents of proposed programs, such as individual social reformers, economists, and trade associations, provided information concerning the reasons why particular legislation was enacted. These views appeared in the form of books, pamphlets, brochures, speeches, and conference reports.

The approach used in this study was to first give a brief introductory description of the program under consideration. The programs were classified according to the perils which they cover, such as the perils resulting from business operations, the perils resulting from natural and manmade disasters, the perils of personal insecurity, and the perils arising from the use of nuclear energy.
Attention was next given to the factors which influenced the development of these programs. This necessitated a study of the social, economic, and political environment existing at the time of enactment, as well as an analysis of the retarding influences or the negative forces arising in connection with the proposals. Environmental factors and the overcoming of opposition movements oftentimes played considerable roles in the ultimate philosophies prompting the establishment of particular programs.

The considerable use of historical material should not be construed to indicate an entirely descriptive approach, since a number of the conclusions concerning the programs have not been specifically stated in the published record but have been derived by logical analysis and inference from existing historical data as interpreted by the author.

After an analysis of the influences behind each particular program, a summary was made in which the various factors were tied together to present the philosophy prompting the establishment of each program.

This analysis of the earlier governmental programs was followed by a rather detailed and comprehensive investigation of the nuclear energy peril. The unusual nature of the peril was considered first, and then an analysis was made of the technical problems in this field
which have created difficulties from an insurance viewpoint. Attention was then focused on the development of the philosophy which prompted the federal government to participate in the writing of insurance for this peril.
CHAPTER II

PROGRAMS COVERING PERILS OF PERSONAL INSECURITY

Introductory Description

The first federal program of insurance against the perils of personal insecurity was established in 1935. The concept that government, especially the federal government, should provide such a program was a revolutionary idea, and there were many and varied factors prompting its enactment.

Consideration is given in this chapter to the reasons behind the two major parts of that program, namely, the feature providing for old-age and survivors' insurance, and the provision for the establishment of unemployment compensation systems. The remaining sections of the chapter will give attention to the one existing state program of life insurance and to state temporary nonoccupational disability insurance.

Old Age

Early Forces Shaping the Program

English and European Influences

The roots of government insurance for the perils of personal insecurity are found in the cooperative self-help
funds originated by the craft guilds of early Europe and in the poor laws of England. The guilds were essentially mutual benefit societies, which, in addition to other functions, gave aid to the aged, the sick, and the poor among their members. The guilds had assumed such important social responsibility by the fifteenth century that European governments began to regulate the management of their funds and the handling of members' contributions. The craft guilds eventually lost their social importance or were dissolved; but the insurance fund concept which they originated remained to serve as a basis for the eventual rise of national programs of insurance in Austria, Belgium, and France.  

The poor laws in England dated back to 1601; and, while not insurance, they did represent an affirmative step of government toward a program for the hazards of personal insecurity. One writer has aptly described the beginnings of the poor laws as follows:

After two centuries of attempts to control poverty by repressive measures, government slowly and reluctantly came to accept a positive obligation for the help of people who could not provide for themselves. The experience of the years between 1349 and 1601 had convinced the rulers of England of the presence of a destitution among the poor that punishment could not abolish and

that could be relieved only by the application of public resources to individual needs.\(^2\)

The significant factor is that government was forced into accepting responsibility in this field because (1) the pressures of the era demanded a remedy for the problem; (2) existing measures were not working; and (3) there were no adequate alternative solutions to the problem.

Another positive step in the trend toward greater government participation in providing insurance for the perils of personal insecurity was made between 1850 and 1854 when the governments of Belgium, France, and Italy established purely voluntary old-age and invalidity funds. The funds offered to workers an opportunity to purchase small retirement annuities at a low cost, as the funds were heavily subsidized by the government. The funds failed to attract many workers, however, and were a failure.\(^3\) The funds were a significant milestone in that they were perhaps the first attempt on the part of government to provide old-age pensions.

The movements noted in the preceding paragraphs indicate that there were several influences at work in shaping the developments leading to greater governmental


\(^3\) Corson, *ibid.*
participation in providing insurance against the perils of personal insecurity, particularly old age. These influences, arranged in the order of their importance in prompting a governmental program, may be said to be (1) the beginning of efforts on the part of private associations to provide programs of coverage for their members; (2) the application of the insurance principle in governmental programs; (3) the growth of an industrialized society, thereby increasing the perils of personal insecurity; (4) the increasing interest of labor organizations in the problems of insecurity; (5) a failure on the part of the individual to provide voluntarily for his own future welfare; (6) the application of the subsidy principle to governmental programs; and (7) the apparent desire on the part of government to provide some form of assistance to wage earners for selected hazards but not for any comprehensive program.

Program in Germany

The first major comprehensive government insurance plan was developed by Germany between the years 1884 and

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1889. The reasons why Germany was the first to undertake a broad national program involve a look at the entire history of Germany during the nineteenth century. Such a study was made in 1892 and reported on in 1893. It concluded that there were at least three separate but closely related reasons for the fast development of the program in Germany. The reasons were as follows: 5

1. Germany, during the second half of the nineteenth century, was the country of the greatest industrial growth on the European continent. It was quickly realized by government that the evils attending this rapid development required some form of state intervention for alleviation of their consequences.

2. The German society was based upon the thought that the weaker members of society would always be excluded from everything that conforms with the usual sense of justice and fair dealing. The situation could be remedied only when the centers of social influence, of which the state was the first and most powerful, became imbued with the idea that a large portion of the misfortunes—sickness, accident, and premature age—were social in origin rather than individual; that many of these evils sprang not from the fault of the individual, but from sources over which

the individual had no control. The German insurance laws were based, therefore, upon a conception of society which was directly opposed to that commonly known as individualism or laissez faire.

This thought was picked up by the German philosopher Fichte who applied it with such force as to result in a distinct practical change of the state's attitude. The state, in Fichte's conception, was not to be negative nor to have a mere police function but was to be filled with Christian concern, especially for the weaker members. The state was to help make men contented, wealthy, and strong in body and mind. The conceptions of property and contract were such as to compel intervention of the superior authority, the state, in order to realize the ends of justice and equality among men.

This concept of the duty of the state toward the working class is essential to an understanding of the origin of the insurance laws in Germany. The insurance laws may have appeared somewhat radical and representative of a new or sudden occurrence, but in reality they were simply a natural development of the concept of the state's function as taught by philosophers and economists.6

6 The main groups of philosophers and economists who held that the state had certain duties toward its citizens were the Nationalists (Muller, List, and Carey); the early French and English Socialists (Saint-Simon, Owen, Fourier, Thompson, Blanc, and Proudhon); and the State Socialists
3. The final reason for the development of a broad program of insurance in Germany was the rapid development of the labor movement under such Socialist leaders as Fichte, Rodbertus, and Lassalle. The general argument set forth by these leaders was to the effect that while state insurance was socialistic, it would be less harmful than the existing systems of charity. It was argued that the existing evils of insecurity were so great and of such practical significance that an immediate over-all remedy was needed regardless of the name given to it--socialism or what. The influence of the state socialists was strong, both in the labor movement and in political circles. The weight of their influence was sufficient to change the idea of state insurance from an economic and social theory into practical application through legislation.

American Philosophy of Individualism

Early attitude toward relief. The English settlers in the American colonies brought with them the concept that giving public relief to persons who were unable to secure support elsewhere was a proper function of local government. The origin of the concept may be traced back to the early conditions in England where it was gradually

recognized that relief of the poor could only be achieved through use of public resources. The concept was modified, however, by a strong conviction that the poverty of the poor was their own fault and that any able-bodied person who could earn his keep would be cared for by relatives and friends. While the granting of public relief was considered a proper governmental function, the government had an equal responsibility to see that the poor would not live in idleness at the expense of the workers who paid taxes.  

A serious shortcoming of the relief program was that little consideration was given to the causes of poverty, and, as a result, the aged, the crippled, the morally weak, the diseased, and the children and widows were all lumped together. In addition, the relief granted was often inadequate. The result of these two shortcomings of the relief program was that the needy were often neglected. Nevertheless, the concept that local government had a certain responsibility toward its needy citizens continued to dominate the thinking of the early settlers in America.  


8 Ibid.
Early progress in relief measures. The early decades of the twentieth century brought forth increased public resistance and agitation against the neglect of the needy. The common practices of using poorhouses and of granting relief in the form of fuel and groceries was becoming increasingly unpopular. Such relief was uncertain, and it attached a stigma to the recipient.

An important development during this period was the increased realization on the part of local and state governments that certain groups of people who were unable to help themselves might need help for a long period of time. Among these were old people, widows, orphans, and persons too disabled to work. This development was due to the fact that the needy were continuing to return for relief, and governments were soon to recognize that something more than temporary measures were necessary to alleviate the problem of relief. The type of the relief recipients—older people, disabled, and widows—were those who had no visible means of regaining their ability to earn a living on their own, and such a situation clearly indicated that government would have a long-range problem on its hands.\(^9\) Outside of the German program, this development was perhaps the first recognition on the part of

government that the problem of personal insecurity was a long-range and continuing one.

Support of the aged was becoming an increasingly serious problem. Progress in science and advances in public health work were increasing the proportion of the population that lived to reach old age. On the other hand, families were smaller; and there were fewer sons and daughters to help support the old people. In a rural economy, there had been many chores which older people could do on the farm to earn their support, but in the cities they had fewer opportunities to make a living. Factories wanted full-time workers and employees who could work at a given pace. Many of the newer kinds of work were difficult for the older people. The growth of industry was also reducing the size of families by attracting children away from the home for work in the factories. In addition, the growing need for better educated people meant that many children left home in order to prepare themselves for the new kind of society, a society which demanded greater skills and training. The results of these developments were that the older people were left with few opportunities for self-support and were forced to look to government for some form of assistance.10

10 Ibid., p. 23.
Era of the 1920's. A small demand was developing in several states in the 1920's for "pensions" for old people. The first state old-age pension program was enacted in Arizona in 1915, and despite the fact that it was declared unconstitutional, several states established such programs in the next decade. Thirty-one states had programs to provide assistance or pensions to the needy aged by 1935. Most of the programs, however, severely restricted eligibility for aid. In addition, the programs were not always fully effective because of a lack of funds to provide the aid.\(^{11}\)

It was becoming increasingly clear that little outside help was available to old people who could not maintain themselves. Private relief agencies had begun to develop in the middle of the nineteenth century, but there were few outside the larger cities. The old-age pension programs in many states were ineffective, inadequately financed, and aided only a small minority of the aged. Few retired workers could expect adequate incomes from trade union funds or private employer pensions.\(^{12}\)

The inadequacy of the existing old-age pension programs began to attract the attention of governmental commissions and private organizations. This attraction was

\(^{11}\) Corson, op. cit., p. 138.

\(^{12}\) Ibid., p. 186.
prompted largely by the fact that persons sixty-five years of age or over made up approximately five per cent of the population of the country in the 1920's. A large number of studies were published in the 1920's which showed the inadequacy of the care available to old people. These studies prompted numerous fraternal organizations to press for public programs for the aged. Among the fraternal organizations, the Order of Eagles had the strongest interest in old-age pensions. Rubinow makes the following observation concerning the reasons for this interest:

Just why this particular fraternal order should have developed so strong an interest in old-age pensions is an interesting question. Perhaps fraternal orders which had a very much stronger hold on the older generation by this very fact, were forced to face the issue of old age. On the other side, as the purely ceremonal features of the fraternal orders lose a good deal of their charm, a social program must be found to justify the existence of the Order and to hold its membership. At any rate, for the Eagles it was old-age pensions. And success in putting old-age legislation through was felt to be a popular talking point.14


These fraternal organizations, as well as other associations, such as the National Civic Federation and the National Industrial Conference Board, exerted considerable influence on public opinion and legislative action during the depression decade. Rubinow gives particular credit to Mr. Abraham Epstein and the American Association for Old-Age Security. He states:

Even a casual perusal of the proceedings of the national conferences on old-age security (1928-1933) will clearly indicate the powerful influence of this association not only in popularizing the essential concepts but in shaping the necessary standards of old-age pension legislation.15

Labor organizations also showed increasing interest in the aged during the 1920's, though they hesitated to support a governmental program. They thought the problem should be dealt with through union benefits, charity, or relief, but that it should not be a part of labor-management relations. They resisted the introduction of old-age security into the area of collective bargaining even while they recognized its increasing importance.16 The slight interest they did show, however, served to influence the development of the movement toward legislation through its effects in educating people about the problem.

15 Ibid., p. 279.

16 Corson, op. cit., p. 186.
The problem of aged workers also claimed the attention of employers and employer groups, but little was done about the situation. The employers were a well-organized group, and they resisted any move on the part of government to establish programs of insurance because of the fear that such required insurance would increase their costs. Some employers, however, were actively in favor of such programs, but their numbers were few. They went largely unheard, except by the several organizations in the country which were working consistently for the establishment of governmental plans on the federal level.

There had been an increasing tendency for both the federal government and the states to recognize that the needs of some groups could best be met by using principles of social insurance. The federal government and many state and local governments had established retirement programs for their employees before 1930. The most important of these plans was the Civil Service Retirement System which was established in 1920 for federal employees. Some of these programs provided annuities for persons who had to retire because of disability as well as to those who reached retirement age. The basic reason for the establishment of the programs was a desire on the part of legislators and local government officials to provide for governmental employees essentially the type of protection that most workers engaged in private industry would receive from a
combination of the Old-Age and Survivors' Insurance program and group insurance and pension plans.¹⁷

Despite these developments, when the depression started in 1929, the great majority of the public was not covered by any form of protection against the perils of personal insecurity. The demands for relief had quickly exhausted the resources of the few existing private agencies and charitable organizations. Probably three-fourths of all relief was supported by public funds. Most of this public relief was paid out of local funds by villages, towns, or counties operating under a state law. The state's chief responsibility for public welfare was to provide care in institutions, such as state institutions for mentally sick or defective persons.¹⁸ It became clear that neither the local communities nor the states could meet the growing need for more adequate relief measures.

Despite this growing need, there was relatively little progress toward establishing a federal program of insurance for the perils of personal insecurity. The progress that was made was primarily in the form of educating larger numbers of persons as to the need for a


federal program and arousing their interest in and support for such a program. There were always many small groups working for such a program, but they were in the minority. The persistent efforts of these groups did, however, have considerable influence on the establishment of the ultimate federal program as a result of their educational activities. But the idea of the government, especially the federal government, in the business of insuring against the hazards of personal insecurity was quite unpopular, and was even considered to be socialistic.

Such an attitude and the resulting lack of progress were simply a reflection of the dominant American philosophy of the 1920's, namely, that personal prosperity was a matter of personal responsibility, and that it was up to the individual to work and become self-reliant. While the role of the state in caring for the needy was recognized as early as the 1800's, such a concept was never adopted as a dominant philosophy. The following excerpts give a clear characterization of the prevailing philosophy:

The dominant sentiment characterizing the era of the twenties cannot fairly be described as hostile. It was worse; it was callously indifferent. There was supreme confidence that rugged individualism in the United States was above the need to provide that social security which had
come to be regarded by all other modern industrial countries as basic and axiomatic . . .19

America was on the whole unaware of the problem of insecurity. Social insurance legislation could not be considered as a cushion for depressions in an era subscribing, officially and popularly, to the dogma of the eternity of prosperity and the immunity of America to future fits of depression. Utopia needed no social insurance . . .20

It was hardly possible to establish any consistent and comprehensive governmental programs of insurance in such an environment. As has been indicated, it was only in the field of old-age pensions that any progress was made, and even this was slow. Several factors combined to break down resistance to old-age pensions: the wide appeal of the proposal to make the lives of the aged more secure, the long educational campaign carried on by various organizations, and the fact that the principles of old-age security appeared not to question the soundness of the social structure. Other factors prompting old-age pensions are given by one writer as follows:

The enactment here and there of old age pension laws is to be credited rather to the foresight of legislators and to the astuteness of individuals and organizations engaged in educational and


20 Ibid., p. 9.
legislative activity, than to an aroused, vociferous public opinion which would not be denied. . . 21

Era of the 1930's. There was little visible change in the philosophy of rugged individualism even during the first two years of the depression. In February, 1931, when unemployment was growing, and there were numerous demands that the federal government take part in provision for relief, President Herbert Hoover expressed his attitude toward such demands as follows:

This is not an issue as to whether people go hungry or cold in the United States. It is solely a question of the best method by which hunger and cold shall be prevented. It is a question as to whether the American people, on the one hand, will maintain the spirit of charity and mutual self-help through voluntary giving and the responsibility of local government as distinguished, on the other hand, from appropriations out of the Federal Treasury for such purposes. My own conviction is strongly that . . . if we start appropriations of this character we have not only impaired something infinitely valuable in the life of the American people but have struck at the roots of self-government. 22

The same philosophy was evident in the American attitude toward the British insurance program, which, at the time, had exhausted its financial resources, and the


22 Ibid., p. 15.
British government was paying the entire bill. The feeling in the United States was that the "dole" must not happen in this country.

The Constitution of the United States, as it had been interpreted, gave the federal government no authority to act in the general fields of relief and what is now known as social security. Therefore, the first of the depression measures for relief and federal assistance was in the form of grants to the states through various federal relief agencies. In addition, a work relief program was started, and the aged shared in both the financial grants and the work programs. Many old people could not work, however, and there was an increasing demand for ways to prevent suffering through some form of over-all relief measure. This demand indicated that the philosophy of individualism was beginning to weaken as a result of the need for immediate action in providing permanent provisions for relief on a national scale.

**Summary of Early Forces Shaping the Program**

The preceding discussion of the developments leading to the establishment of a federal insurance program for the hazards of personal insecurity is not intended to be a comprehensive history. Significant developments were presented which bring to light certain forces which influenced and entered into the philosophy prompting the enactment of
social security legislation in 1935. These forces may be summarized as follows:

1. The concept of governmental responsibility for the needy, especially the aged, was an old one in England and Europe; this tradition was brought to the United States, where the responsibility became purely a local government matter. Governmental programs of assistance, therefore, were established early in this country, and the idea was to later develop on an ever-expanding scale.

2. Government was often forced into providing programs of assistance and relief because alternative private measures proved inadequate. The inadequacy of existing measures was to become a strong factor in the enactment of the federal program of social security in the 1930's.

3. The growth of industry increased the problems of the aged through their inability to obtain gainful employment in the new type of society. The problem of the aged person now demanded some form of permanent relief measure, and pressure was brought to bear on government to provide these measures.

4. The work of fraternal organizations and other associations was influential in the movement for the enactment of governmental programs for the hazards of personal insecurity.

5. The American philosophy of rugged individualism was a factor which retarded the development of federal legislation in the field of social security. This concept was gradually weakened, however, by the increasing social and economic needs of the times.

6. The inability of state and local governments to finance their relief programs resulted in an increasing demand for federal action. While numerous states had made progress in enacting various programs of assistance, these plans were for the most part temporary and inadequate to meet the demands on them. These limitations showed clearly the need for a program national in scope.
It is against this background that attention is next focused on the more specific environmental factors which prompted the enactment of the federal Social Security Act of 1935. Consideration is given first to the economic and political factors existing during the discussions on the legislation, and then, congressional attitudes toward the legislation are examined.

Developmental Environment of Program

Economic Factors

The economic environment existing at the time the social security program was enacted in 1935 was one of widespread unemployment and poverty. The depression was several years old, its full effects were being felt, and government relief constituted the major form of support for many people. Even government relief was being hard pressed to continue relief payments because of the rapid exhaustion of relief funds due to the heavy demand of unemployed persons, especially on the state and local levels.

The movement for an insurance program on the federal level against the perils of personal economic insecurity

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got under way with a message sent to Congress by President Franklin D. Roosevelt on June 8, 1934, when he stated:

Our task of reconstruction does not require the creation of new and strange values. It is rather the finding of the way once more to known, but to some degree forgotten, ideals and values. If the means and details are in some instances new, the objectives are as permanent as human nature.

Among our objectives I place the security of the men, women, and children of the Nation first. This security for the individual and for the family concerns itself primarily with three factors. People want decent homes to live in; they want to locate them where they can engage in productive work; and they want some safeguard against the misfortune which cannot be wholly eliminated in this manmade world of ours.24

Actually this message was merely a reflection of an already changing American attitude, but it had considerable emotional appeal and may be said to have given additional impetus to this change of attitude toward the role of federal government in providing economic security for its citizens. Abraham Epstein describes the effects of the President's message as follows:

It stirred the entire nation to a high pitch of enthusiasm. The subject of social insurance was hailed from one end of the country to the other. The President's speech was greeted with practically universal approval. Even the stand-pat reactionaries were forced to come out in favor of the President's program, while almost every candidate for political office jumped on the social security bandwagon. Governors made it their campaign issue. Congressmen spoke for it. Candidates for state

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legislatures made it a plank in their platforms. Even aspirants for city councils and sheriff's offices felt compelled to declare themselves in favor of social security. Perhaps at no time was a governmental promise received with such singular praise.\textsuperscript{25}

The economic plight of the country, therefore, had also brought about a radical change in social philosophy and social values within a relatively short period of time. The sudden change in attitudes made the establishment of a sound program somewhat difficult. People were willing to accept almost any kind of solution to the problem of economic insecurity. The following excerpt from Epstein aptly portrays the situation:

Unfortunately, the long delay in facing realistically the challenge of insecurity made the planning of a sound program of social insurance genuinely difficult. The pressing distress and bitterness made calm and clear thinking impossible. The long years of depression and suffering called forth the inevitable voices of confusion and delusion which always strut upon the stage in times of stress. The desire for an escape from misery was irresistible. Without the basic understanding of the alleviative power of social insurance, the search for Utopia was rampant. Quacks, panaceists and racketeers, who are ignored and ridiculed in normal times, found a nation in agony only too ripe and eager to accept their professional misery-bred miracles. The Coueism of the New Era was merely transformed into a medley of delusions—Technocracy, Social Credit, Share-the-Wealth, the Epic Plan and Townsendism—under the New Deal, since the pot of gold at the rainbow's end has ever been our guide. Even many friends of social insurance succumbed to the pipe dreams. American liberal opinion, too, became so

distorted by these cure-all visions that its influence was no longer thrown into the balance in favor of sound legislation. Amidst the welter of pipe dreams, Utopias and panaceas urged upon the American people by a host of hawkers whose eagerness for cure-alls was matched only by their ignorance, an intelligent understanding of the problem became well-nigh impossible. Constructive students of the problem found it increasingly difficult to bring light into the deepening darkness.  

It was in such an economic environment—one of depression, one of a compelling demand for immediate action of some kind—that President Roosevelt followed up his earlier message to Congress by appointing a Committee on Economic Security to study the problem and to make recommendations for a national program.

Political Factors

A factor which caused immediate criticism and which was later reflected in a congressional attitude of indifference toward the legislation was the make-up of the committee selected to study the problem. The traditional government commissions were made up of experts and students of the problem. Instead of appointing such a commission, the President appointed one composed of the busiest members of his administration.  

The working out of an economic

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26 Ibid., pp. 671-672.

27 The committee members were Miss Frances Perkins, Secretary of Labor, Chairman; Mr. Henry Morgenthau, Jr., Secretary of the Treasury; Mr. Homer Cummings, Attorney General; Mr. Henry A. Wallace, Secretary of Agriculture; and Mr. Harry L. Hopkins, Federal Emergency Relief Administrator.
security program required the most careful thought and deliberation in order to adapt it to conditions in this country. The entrusting of such a complicated program to a committee composed of members who were already busy with their own problems did not facilitate such careful deliberation.

In addition, the committee itself, for some unknown reasons, decided to employ a staff of research assistants who had little or no knowledge of the subjects confronting the committee. There were few of the outstanding authorities on social insurance on the committee. A large number of the research staff were simply employees of other government departments. Such a research staff could hardly contribute much in the way of knowledge of basic principles of social insurance, nor could they help much with the solution of the many problems facing the committee.

Several conclusions may be drawn from such action. First, the Administration, despite its announcements to the contrary, was not really enthusiastic about the idea of a national program in the field of social security, at least not at that time. Therefore, it appointed such a commission with full knowledge that it would take quite some time to work out acceptable legislation. Support for such an implication came from President Roosevelt himself when in this same period he stated before the delegates of the Economic Security Conference at Washington: "I do not know
whether this is the time for federal legislation on old age security." Secondly, the action may have indicated that the Administration wanted to insure a program that would not be too radical and was fearful that the social insurance experts of the country would develop proposals which were contrary to the more conservative desires of the Administration. A committee made up mostly of Administration members would be easier to control.

Consideration of economic security legislation was handicapped from the start by a lack of political policy and positive leadership from the Administration. The study committee had been given no specific instructions as to the particular subjects upon which to recommend legislation, and, for a time, it was doubtful whether any action would be taken at all. Frederick Lewis Allen, reflecting some years later on the establishment of the social security program, stated that the bill might not have seen the light of day until much later than 1935, if ever, had not President Roosevelt been worried about the offensive against his administration, not from those who thought it was doing too much, but from those who thought it was doing too little--from Huey Long with his "share-the-wealth" slogan, and more especially from Dr. Francis E. Townsend with his extraordinary proposal for putting old people on the federal payroll.28

Another political factor influencing the enactment of the legislation was that there was an urgent need for

28Allen, op. cit., p. 18.
immediate establishment of an economic security program due to the political fact that the administration had promised the American public a program, and there were large numbers of groups actively working for the program. Also, the Republican Party had changed its attitude and was now advocating the need for such legislation in its own platform. In addition, congressional elections were approaching and the subject could not be put off. Therefore, the administration had determined that now—the presidential election year of 1935—was the most opportune time for the program. In fact, it was a political necessity.

Such a mandate to rush things caused considerable criticism from many members of Congress and perhaps had a bearing on a developing indifference to the program. The mandate certainly was not a wise idea in light of the major nature of the new proposed legislation.

The opposition to such a program in the United States had been extremely strong and bitter, more so than in European countries. American employers, primarily through the National Association of Manufacturers, were well organized to block such a program. Epstein aptly describes the nature of the employers' objections to the program as follows:

American employers' organizations, in fact, have rarely opposed labor legislation on purely economic grounds. Labor laws have been fought not so much on grounds of cost which presumably industry cannot afford, but usually on the patriotic and moral
grounds that even the slightest reform endangers the very foundation of the Republic by encouraging thriftlessness, undermining ambition, and degrading the ideals of individualism upon which this nation has been built. American employers always maneuver to fight chiefly for the ideals of the Founders. 29

The objections of the employers were voiced, therefore, through their trade associations which distributed pamphlets, bulletins, and other forms of printed matter in opposition to the program. In addition, the associations themselves employed research directors to study the proposed program and to prepare research reports stating reasons as to why the program should not be adopted. The ideas expressed in the above literature were also picked up by the public press which served to transmit the employers' objections to larger groups of people.

The opposition of the employers served as a strong deterrent to the enactment of economic security legislation because their negative attitude was quite effective in influencing the opinions of other individuals and groups of persons, such as congressmen. In addition, the employers represented large blocks of voting power, which any administrative would like to have on its side in an election.

In addition, there was no radical political movement in this country with any real influence which might have

29 Epstein, op. cit., p. 676.
helped the introduction of a program, or at least stirred up interest in the subject. Social insurance was inspired in other countries largely by trade unions and the radical and Socialist political parties. As indicated above, the American labor movement had for years opposed every form of social programs.

The study committee faced the further difficulty of the fact that the American public lacked knowledge about social insurance. There had been no extensive educational campaign on the subject in the country. As has been indicated above, there was little interest in the problem of economic insecurity until the depression, and it was even some time after 1932 before there arose any real demands for action. There was an imperative need, both from an economic standpoint and a political standpoint, for quick legislative action. Yet against this urgency stood the basic ignorance of the public—a situation which could not be ignored entirely if an effective and acceptable program were to be established.

Legislative Attitudes Toward Program

The progress of economic security legislation through Congress was slow. The proposed bill was introduced in Congress on January 17, 1935, and the bill as finally agreed upon by both Houses was not approved by the President until August 14, 1935. The Senate did not adopt the bill
until the last day of the session, and Congress adjourned without making any appropriation for the program. A sum was finally appropriated in February of 1936.

Attention is focused below on the course of the legislation in Congress. The purpose of the discussion is to point out the factors which accounted for the slow progress of the program, and then to show why the program was finally enacted—in spite of its many obstacles.

Factors Deterring Prompt Action on Program

Resentment against "all or nothing." The administration presented recommendations to Congress for an economic security program on a "must" and "all or nothing basis." This was resented by some members of Congress and was responsible in part for their lack of strong interest in the proposed legislation. It was generally felt that legislation of such a major nature should not have to be taken in one piece, and that it was far from being a "must." In addition, there was the President's request that "immediate" action be taken on the program. While Congress had a Democratic majority, the members nevertheless resented administration pressure.

Assignment to disinterested committees. Instead of referring the proposed legislation to the regular labor committees, the measure was referred by the administration's floor leaders in Congress to committees made up largely of
veteran political leaders. This action was defended on the ground that the measure required the setting up of a tax and therefore had to be referred to the Ways and Means Committee in the House and Finance Committee in the Senate. The regular labor committees were composed generally of members from industrial centers who had a long-standing interest in labor legislation, while the finance committees were headed by men who, "for all their good intentions, found the entire subject unfamiliar, irksome and its aims altogether contrary to their previous convictions." One observer commented on this action as follows:

This reference to the Ways and Means Committee instead of to the House Committee on Labor ... was explained by certain cynical students of the political scene on the ground that the administration feared that the relatively progressive or radical Committee on Labor would so liberalize the provisions of the measure that the administration would be forced into a more radical position than it wished to assume.31

Lack of understanding of bill. The original legislation as introduced in Congress was poorly drafted and confusing. Epstein states that "it was so incompetently and loosely drawn that its introduction caused a sensation. It was completely unintelligible."32 The technical details of

30 Epstein, op. cit., p. 743.


32 Epstein, op. cit., p. 732.
drafting the bill had been assigned to the legal staff of the Department of Labor, and there was little or no sequence in topics covered. The wording was ambiguous and even sometimes not understandable at all; it was obvious that the bill had been prepared in haste. The work of the Committee on Economic Security in preparing the recommendations for legislation had not been publicized with the result that neither the members of Congress nor the public had any conception of the bill's basic provisions nor of its social and economic implications.

The magnitude of the ignorance of the members of Congress as to the main purposes of the bill is indicated by a statement made by an active member of the House Ways and Means Committee, when during the debate on the program he stated:

I know that it is probably difficult for the members generally to find the time to study this bill closely and to understand every detail of this legislation. That is no reflection on anyone. I want to confess it is difficult for the members of the Ways and Means Committee, who have studied it for weeks and weeks, to get the full purport and understanding of all its provisions and ramifications.33

A stronger and somewhat cynical expression of the same sentiment was expressed by another congressman when during the course of debate he exclaimed:

33 Congressional Record, 74th Congress, 1st Session, April 12, 1935, p. 5716. Statement of Representative Samuel B. Hill.
There is not a man on the Committee of Ways and Means that really understands this bill. It was drawn by members of the "brain trust," many of whom, probably, had never earned a dollar in their lives and they are not earning anything now -- theorists, college professors, young whippersnappers, some of them not dry behind the ears.**

A similar situation existed in the Senate. The chairman of the Senate Finance Committee was always assisted by two experts during the course of the discussion of the program on the floor of the Senate. One Senator commented upon the situation as follows:

I think it is no exaggeration to say that there were over three times as many experts in attendance in that supposed executive session of the Committee as there were Senators present to vote on the bill . . .

Little testimony from practical people. The congressional committees which held hearings on the proposed economic security legislation heard from people who may be divided into four groups: (1) Those who explained the bill and argued in favor of it. This group included such persons as Miss Frances Perkins, Secretary of Labor; Senator Robert Wagner, a strong advocate of social security; and Dr. Edwin E. Witte, a college professor who headed the

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34 Congressional Record, 74th Congress, 1st Session, April 12, 1935, p. 5541. Statement of Representative Knutson.

President's committee in studying the problem of insecurity, and the top social security expert in the country. Mr. Witte had previously held such positions as statistician for the Industrial Commission of Wisconsin in 1912, special investigator for the United States Commission on Industrial Relations in 1914-15, secretary to the Industrial Commission of Wisconsin from 1917-22, chief of the Wisconsin Legislative Reference Library from 1922-33, and as acting director of the Unemployment Compensation Division of the Industrial Commission of Wisconsin in 1934. (2) Constructive critics of the plan, who although approving many features in the bill, believed it could be improved in other respects. Representatives of this point of view included Abraham Epstein, a long-time advocate and leader in the social security movement; William Green, President of the American Federation of Labor; and Dr. Frank P. Graham, a noted educator who had served as president of the University of North Carolina and who had a keen interest in governmental social legislation. He was later to serve as chairman of the National Advisory Council on Social Security and as chairman of the Public Hearings Commission of the President's Labor Management Conference in 1945. (3) Advocates of widely differing plans, as represented by the proposals of Dr. Francis Townsend and Congressman Ernest Lundeen. The Lundeen Bill recommended a program to be financed entirely by the government from income taxes.
This proposal was in direct opposition to the administration's measure which recommended a contributory type program. (4) Opponents of social insurance. Among this group should be listed the National Association of Manufacturers and the United States Chamber of Commerce.36

The make-up of the above groups of witnesses brought forth charges from a number of congressmen that the hearings were inadequate and that there was little testimony from "practical people." The following excerpts from the Congressional Record are typical of the attitudes of congressmen toward the inadequacy of the hearings:

While this measure has been before Congress since the middle of January, and more than a thousand pages of testimony have been taken . . . there was little testimony from persons of experience in business lines. Practically everybody who appeared had some part in drafting the legislation or was consulted with respect to the problems involved. There were not to exceed a half dozen persons who testified who were not a part of the present new-deal administration.37

The only fair way that old-age annuities and unemployment insurance should be made policies of the Federal Government is after a disinterested commission, composed not only of college professors, members of the "brain trust," and "new dealers," but of people of experience and judgment, has studied such problems for an indefinite period and reached conclusions which could be recommended to the Congress.38

36 Douglas, op. cit., p. 95.

37 Congressional Record, 74th Congress, 1st Session, April 12, 1935, p. 5526. Statement of Representative Treadway.

38 Ibid.
Disorderly debate on program. Despite the fact that the Social Security Bill was poorly drafted, and despite the lack of understanding of its provisions among Congress, hearings were rushed "at which official spokesmen attempted to explain away the drafted bill."\(^39\) It was only after these spokesmen were through that other interested persons were allowed to testify. "The House Ways and Means Committee even attempted to limit all outside witnesses to five minutes and on one occasion forcibly ejected a speaker when he overstepped the time limit."\(^40\) There were fewer than a half dozen of the 247 pages of actual House debate which presented a genuine discussion of the proposed program of economic security. The remainder of the discussion was taken up with Congressmen talking mainly to be on record as endorsing old-age pensions. There were, of course, the explanatory remarks of the sponsor of the program, but these remarks contributed little toward an understanding of the reasons for the enactment of the legislation. Even the unemployment insurance portion of the program, to be discussed later in this chapter, did not consume a half column in the Congressional Record during five full days of discussion. The contributory old-age insurance plan, a completely new idea in this country,

\(^{39}\) Epstein, *op. cit.*, p. 733.

\(^{40}\) Ibid.
received less than a page in the hundreds of columns of debate in the Senate. 41

Ineffectiveness of public opinion. There was considerable criticism, especially from organized advocates of social security, that public opinion was not effective in making itself known to members of Congress; and, therefore, the latter were ignorant of the real wishes of the American people. The American Association for Social Security, Inc., the strongest organized advocates of such a program, maintained that public opinion was more heated and emotional than it was logical. The Association further maintained that the public was failing to use sound judgment and accurate knowledge in making proposals and suggestions to Congress. Consequently, the people's representatives in Congress often became irritated, and this made them even less interested in establishing the program. 42 The Association further stated:

The champions of social legislation too often indulge in long-distance denunciations, indiscriminate and intolerant criticism, and self-righteous dogmatism. . . . Not infrequently they substitute journalistic epithets for judicious appeals and

41 Ibid., p. 744.

sweeping generalizations for sound judgment. . . . Rightly or wrongly, it often injures a good cause. It serves to alienate and antagonize the members of Congress.43

Factors Prompting Action on Program

Congress had been in session for nearly eight months and had passed practically everything the administration demanded. Congress had no particular wishes or opinions of its own concerning the old-age insurance program. As pointed out above, few members of Congress knew anything about the program or of its implications. Nor did the old-age insurance part of the bill receive any effective pressure from opposition groups. For the most part, Congress was ready from the beginning to follow recommendations of the Committee on Economic Security, though the committee's bill was loosely drawn and difficult to understand. The most important consideration before Congress was that the measure was an administration "must" and with an administration controlled Congress the measure was certain of passage.

As indicated above, the economic environment at the time the legislation was introduced in Congress was one of depression. There were incessant demands from many groups that something be done quickly about the problem of economic

43 Ibid.
insecurity. While Congress did not have any preconceived ideas on just what type of legislation was best to remedy the problem, it did realize that something had to be done. The social security legislation was passed therefore, not because of the enthusiasm of Congress for the measure, but because of fear on the part of Congress of the consequences of not doing anything about the problem. The economic situation demanded immediate action.

The fact that the social security program reached Congress just prior to an election year affecting both the House and the Senate was no doubt a factor prompting passage of the legislation. The Administration had been forced to take action on the problem as a result of pressures from the opposition party, who had made the insecurity issue a part of its political platform. Now with the proposed legislation being considered in Congress, it was essential—from a political standpoint—that the program be enacted.

Summary

A summary of the program's course through Congress indicates clearly that action was slow. Though the bill was introduced in January, it was not enacted until the closing days of Congress in August. This slow progress may be attributed to several factors which conditioned the attitude of the members toward the program. The most
important of these influencing factors were: a feeling of resentment against Administration pressure for immediate action on such major legislation, and especially on an all or none basis; a lack of understanding about the proposed bill, and little testimony to help remedy this lack of knowledge; a public opinion that was more emotional than logical; and a Congress which was too concerned with more pressing New Deal legislation and election year problems to give much attention or interest to long-range reform programs.

The legislation was finally enacted despite the above difficulties and deterring factors. Economic conditions necessitated a program of some kind for the relief of economic insecurity. The fact that such a new and major piece of social legislation passed Congress at all was due to the twofold considerations that: (1) the bill was an Administration measure, and practically all such measures were being passed by an Administration-controlled Congress; and (2) Congress was facing an upcoming election year.

Unemployment

The major governmental program in the United States for the alleviation of the consequences of unemployment is the unemployment insurance (or compensation) system which was enacted in the Social Security Act of 1935. The program is designed to provide regular cash payments to
involuntarily unemployed workers for a limited number of weeks.

Unemployment insurance is essentially a state program which, though only passed in the middle 1930's, was actually proposed and discussed for a period of two decades before the depression. Federal action was necessary, however, to secure programs in all the states. Consideration is given below to the background of unemployment insurance in this country and the specific factors which prompted federal action.

Factors Prompting the Program

Unemployment insurance in other countries. Unemployment benefits in Europe were first provided by trade unions for their members, and the first successful plans for governmental action were in the form of subsidy to these trade-union plans. The most widely known of these programs were started by small local unions in Liege, Belgium, in 1897, and in Ghent, Belgium, in 1901.44

The need for pooling the risk forced the combining of many of these funds into national organizations. In 44 The objective of these programs was to assist labor unions which granted unemployment benefits and to encourage other unions to establish such plans. The programs generally paid additional benefits to members of those trade unions which established out-of-work allowances, and also gave a bonus on sums withdrawn from savings banks to workers who thus sought protection outside the union plans. The subsidy amounted to 60 per cent of the original benefit. Epstein, op. cit., pp. 324-326.
1920, the Belgium government consolidated these organizations into some semblance of a national system with centralized control of funds and national subsidies when needed. Centralization was increased during the depression of the 1930's, and in 1934, communal funds were abolished. Nationally controlled placement-and-unemployment offices were established in place of these funds. By 1935, ten European countries had unemployment insurance systems under which government subsidies were paid to voluntary plans.45

Europe had enacted compulsory unemployment insurance legislation more than two decades before any such programs were established in the United States. Great Britain, in 1911, was the first country to enact national compulsory unemployment insurance. By 1935, ten foreign countries had similar legislation.46

Governmental participation in the insurance plans described above was prompted not so much by economic

45 United States Department of Labor, Bureau of Employment Security, United States Employment Service, Employment Security Review, "Twenty Years of Unemployment Insurance in the USA, 1935-1955," Vol. 22, August, 1955, No. 8, pp. 5-6. Countries having laws subsidizing voluntary insurance systems were France (1902), Denmark (1907), Norway (1915), Netherlands (1916), Finland (1917), Belgium (1920), Czechoslovakia (1921), Switzerland (1924), Spain (1931), and Sweden (1934).

46 Ibid. Countries having compulsory unemployment insurance laws were Great Britain and Northern Ireland (1911), Italy (1919), Austria (1920), Irish Free State (1920), Queensland, Australia (1922), Poland (1924), Bulgaria (1925), Switzerland (1925), Germany (1927), and Canada (1935).
consideration as by ethical and moral factors. It was the concept of the "ethical function of the state" that seemed to be the controlling factor. The following explanation accompanied the first draft of the first insurance program in Europe:

It is the duty of humanity and of Christianity for the state to interest itself to a greater degree in those of its members who need help. It is a duty to cultivate beneficent institutions. This will be no novelty, but a further evolution of the modern idea of the state, a result of Christian morality, in accordance with which the state should not merely discharge the duties of self defence, but those also of a positive character in promoting the welfare of all of its members, and especially of the weak and needy.47

The experience of foreign countries with unemployment insurance plans was studied by people in this country who were advocating similar programs. While the programs in the United States had to be related to local conditions, the experience of the other countries was followed where it was applicable, and this experience is considered to have been a strong factor prompting interest in government unemployment insurance in this country.

Voluntary plans in the United States. Prior to the depression of the 1930's, the prevailing attitude toward any governmental scheme of unemployment insurance was

essentially negative. This was because of the individualistic tradition in the United States prior to the depression. Discussion of the subject of unemployment insurance was confined primarily to academic circles, and there was little expectation of governmental action. One observer wrote:

There is, therefore, little to be said about the early role of government. In the years preceding the depression, no administration, state or federal, paid any particular attention to unemployment insurance, and it was not unnatural that no official commission was designated to look into unemployment compensation as such, apart from other related subjects. The major political parties manifested no interest; and there is record only of the broad endorsement of social insurance by the Progressive Party of 1912 and the introduction of a special insurance bill by the Socialist Party in 1921.48

Interest in unemployment insurance always increased in periods of depression, however, and since a government program was deemed undesirable, the alternative was the establishment of voluntary plans by private employers. While the movement for voluntary unemployment insurance made little progress in this country, "the part played by organized labor and employers was a prelude to the real drive for unemployment compensation. Through the efforts of these groups, acting both separately and in conjunction, it is possible to trace a small movement for voluntary

unemployment insurance, which in the course of time shaded into one for compulsory unemployment insurance. "49 The significance of the voluntary plans, therefore, lies in the fact that they were an important underlying influence prompting the ultimate establishment of the present federal-state program.

Wisconsin law. The most persistent efforts to obtain state unemployment insurance legislation were made in Wisconsin, largely through the interest of Professor John R. Commons and his associates at The University of Wisconsin. Every legislature in the United States from 1921 to 1931 considered an unemployment insurance bill. These bills were known as the "Huber Bills."

Little consideration was given to the subject of unemployment insurance during the boom period of 1916-20. Renewed interest in the subject was the direct result of the short but severe depression of 1920-1921. It was due to the efforts of Professor Commons, however, that a new proposal was drafted and presented to the Wisconsin legislature. Commons had been one of the early administrators of workmen's compensation, and as such he was impressed by the stimulus which the workmen's compensation laws had given to the movement in industry for accident laws.

49 Ibid.
prevention measures. It was his belief that if employers were required to pay a substantial part of the costs of unemployment they would find means of greatly reducing unemployment, just as industrial accidents had been reduced after enactment of workmen's compensation laws.50

Professor Commons conceived the basic problem of unemployment to be that of stabilizing employment, which could be undertaken by business itself. He opposed the European concepts that unemployment was something inevitable and that a philanthropic system to aid the unemployed should be established.51

It has been suggested that Professor Commons' belief that unemployment could be regularized, and that the charitable type of unemployment insurance thereby could be made unnecessary, was perhaps a phase of a larger interest on the part of business leaders, economists, and legislators in the subject of business or capitalistic stabilization. It was on such broad grounds that the groups studying unemployment in the 1920's considered unemployment insurance. It was also suggested that the widespread consideration of his proposal flowed from the


business optimism that characterized the twenties, especially immediately prior to the depression of 1920-1921.52

Through Professor Commons' efforts, interest in the problem of stabilization was more than academic in Wisconsin and considerable thought was given to the particular means by which unemployment could be stabilized. Though the Commons' proposals--through the Huber Bills--were defeated by small margins in the legislature, they did mark the first positive step toward unemployment insurance legislation. The bills were copied in other states, and this served to further prompt discussion on the subject throughout the country.

**Depression of the 1930's.** The depression of the 1930's brought forth new forces which ultimately prompted the federal action causing unemployment insurance to be enacted in all the states. While the voluntary unemployment insurance plans and the Huber Bills prompted considerable interest and discussion in the subject, they had not succeeded in arousing any widespread movement for unemployment insurance, mainly because of the continued prosperity of the country. There was also a considerable division of opinion among the advocates of unemployment insurance as to

the best type of plan to use, and this lack of agreement deterred whatever movement there might have been.

The situation prior to the depression was described by one writer as follows:

All that could have been expected before the depression was a slow, state-by-state development, with the customary whittling down of conservative opposition, conversion of legislators or parties and, perhaps, amendment of state constitutions to offset adverse court decisions, together with an eventual adjudication of the issue by the United States Supreme Court.53

The above situation was completely changed as a result of rising unemployment in 1929. The nature of this change was characterized by Malisoff as follows:

From 1930 onward, a comprehensive movement for unemployment compensation was accelerated by (1) the radically changed attitude toward the unemployment problems in this country and (2) the forced and unforeseen entrance of the federal government into the field of unemployment relief. These new factors were of great significance. Both the problem of unemployment and the relationship of the federal government to the states, in the domain of social-economic legislation touching on that problem, grew complex overnight. In the face of the exigencies of the situation, the time for planning was brief and the pressure for action was great. Unemployment compensation seemed to provide a "ready-made" course of action, although a few years had to elapse to prove that the exigencies, which it presumed to meet, were permanent.54

Only emergency legislation was given consideration during the early days of the depression. While the problem

53 Ibid., p. 244.
54 Ibid., pp. 244-245.
of unemployment was a large one, it was hoped that the upturn of the business cycle would solve the problem; consequently, no immediate action was taken. During this period of waiting for the cycle to start upward, both the state and federal governments started unemployment relief programs to aid the needy. This temporary step was significant in three respects:

First, it meant that government was drawn into an activity hitherto reserved for private philanthropy; in other words, a sharp break was made with the individualistic tradition that had consistently impeded the development of social legislation. Secondly, the rapid financial involvement of government to the extent of several billions of dollars, appropriated and borrowed to meet continuing needs for relief, made other social legislative measures in or near the same field seem much less momentous in comparison; a country already enduring this tremendous expense was all the more ready to consider proposals, such as unemployment compensation, which involved considerably smaller sums and under which the moneys expended would be accumulated in good times. Thirdly, the unsatisfactory quality of the emergency relief measures laid a favorable basis for the proposal of substitute or supplementary devices, that had the advantage of being permanent by design and, therefore less wasteful.

Because of the reasons stated in the preceding paragraphs, the movement for unemployment insurance attained considerable momentum between 1931 and 1934. In addition, "the inability of private industry to cope with unemployment

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55 Ibid., p. 245.
proved a powerful argument in favor of letting government tackle the problem."  

**Federal action.** Despite the changed attitude toward unemployment, the fact of the depression alone was not sufficient to bring about a comprehensive system of unemployment insurance. Between 1931 and 1934, there had not been a single law enacted outside the state of Wisconsin even though there was a strong movement throughout the country for this form of protection. There were three obstacles in the way of a comprehensive system: (1) The seriousness of the depression itself did not make for an opportune time to create such a program. It was a time of heavy and increasing unemployment, with no prospects for improvement. Workers were more interested in some form of immediate relief rather than in any long-range reform measures. Also, it was felt that additional burdens should not be placed on employers in a period of depression. In addition, public employment agencies were practically non-existent. (2) The proposals which had been put forth were for the most part state-wide in extent, and there was fear that if one state took action, while others did not, the unemployment insurance tax placed on a local industry would handicap it in interstate competition.

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56 Ibid., p. 246.
The final obstacle was constitutional. There was uncertainty as to whether state or federal constitutions would permit the legislatures to handle unemployment in the terms represented by unemployment insurance. The Constitution provides that Congress has the power to levy taxes for the general welfare. There was a considerable degree of uncertainty, however, as to whether a levy on employers of eight or more workers for the purpose of establishing an unemployment insurance program is a true tax or a penalty whereby Congress sought indirectly to regulate in matters where it had no direct power.

It became apparent that if these obstacles were to be overcome the movement for such a program would have to secure stronger support than had been obtained in a few states through the efforts of private individuals and organizations. The essential element which was needed was a positive attitude on the part of the federal government toward the unemployment insurance problem. The obvious aid that the federal government could render was to break up the current state legislative impasse, or to make it possible for the willing states to adopt unemployment insurance

57 Ibid., pp. 247-250.

compensation without disadvantage, even though other states were not ready for legislation."

Positive federal interest and leadership came in 1933 with the advent of a Democratic administration. Discussion of methods for meeting the obstacles to unemployment insurance were taken up in the Congress in January, 1934, and the proposals were studied by the Committee on Economic Security appointed by the President in June, 1934. The Committee drafted a comprehensive social security program which was finally passed in the form of the Social Security Act of 1935.

The method of inducing the states to establish unemployment insurance plans was the so-called "tax credit" or "tax-offset" scheme. A federal tax of 3 per cent would be levied upon the wages and salaries of employers having eight or more workers. The tax was levied on total wages up to 1939, but an amendment in that year fixed a limit of $3,000. "The 3 per cent rate was selected for two basic reasons. First, it represented an 'actuarial' figure that would have provided benefits at levels envisaged in a number of proposed bills for the period 1920-1932. Second, it was a compromise between 'disaster relief' and 'high benefit' plan proponents." The 3 per cent tax was to be


paid to the federal government. The respective state governments, however, could deduct 90 per cent of the federal tax if they had an approved unemployment insurance law of their own. The other 10 per cent would be paid to the federal government for administrative costs of the program. Such a plan meant that a state could keep the larger share of tax receipts for use in its own state rather than having them sent to the federal government for use in all states. The plan provided a strong incentive for a state to establish an unemployment insurance program.

The tax-credit provision of the Social Security Act achieved its purpose, but there was some delay before all the states adopted the plan. Two unsettled issues accounted for this delay: first, the presidential election of 1936 was yet to be held; and second, the question of constitutionality of several unemployment insurance cases before the United States Supreme Court was yet to be decided.

The victory of the Democratic party in November, 1936, settled the first issue, and the Supreme Court settled the second issue on May 24, 1937. 61 The years 1935 to 1937 saw all state legislatures establish programs of

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61 Helvering v. Davis, 301 U.S. 619 (1937). The court upheld the entire Social Security Act of 1935 by this decision. The tax-offset plan of the unemployment insurance provisions of the Act was upheld on the grounds that federal tax rebates to states constituted an incentive rather than coercion.
unemployment insurance. The period was aptly described as follows:

The manner and rate of passage of the unemployment compensation acts in the years 1935 to 1937 indicate why their advent may be viewed as a process of emergence rather than development, a process which was set into motion by the federal government and concurred in by the states with feelings varying from enthusiasm to reluctance. These years afforded the great opportunity for national legislation on unemployment compensation, and the federal government was clearly determined not to let the opportunity pass. Action, therefore, was the keynote of the three-year period just as inaction had characterized the earlier years of the movement. Viewed against this background, the universal acceptance of unemployment compensation was a political miracle.  

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**Summary of Factors Prompting the Program**

Unemployment insurance in the United States was the outcome of a long-time conflict between two forces, plus the political wisdom of acting while the time was right. The two opposing forces were those of economic reality and social philosophy. Economic factors indicated the need for a comprehensive unemployment insurance program, but the individualistic tradition of the country opposed any governmental plans.

The severity of the depression of the 1930's succeeded in bringing about a changed attitude toward the problem of unemployment, and a widespread movement for a governmental program was created. The depression and the

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changed attitude in themselves were not sufficient, however, to prompt the establishment of a national program. It was necessary to obtain positive federal government support, which was received in 1933 with the advent of a Democratic administration. The Administration quickly took advantage of the current national desire for unemployment insurance and succeeded in establishing programs in all the states within the next three years.

The establishment of the current federal-state unemployment insurance program must be attributed largely to political wisdom and shrewdness. While economic conditions of the 1930's dictated the program, similar conditions had existed previously, and no program had been enacted. The entire Social Security Act—of which the unemployment insurance provisions are a part—may be said to have been an afterthought on the part of the Administration, a realization that from a political point of view the time had come for such a program. The Act passed Congress primarily because it was an Administration "must" measure.

It is quite possible that had the Administration not acted at the time it did, taking advantage of the change of the moment in national attitudes, unemployment insurance would not have been established.
Life

Nature of Program

The only life insurance fund in the country that is completely controlled and operated by a state government was established in Wisconsin in 1911. The State Legislature authorized the Insurance Commissioner of the State to issue life insurance on residents of the State; and the first policy was issued in October, 1913. The Fund is administered by the State Treasurer but the State does not assume any liability beyond the amount of the Fund. Applications are submitted through designated state, county, and city officials and through state banks. The applications are sent to the office of the State Insurance Commissioner, and business is handled through his office.

The Fund is essentially a participating old-line insurance company. The difference in rates between the Fund and regular old-line companies is due to the fact that the Fund charges less for expenses than do the regular old-line companies. The Fund has no soliciting agents and does not engage in advertising. The State Board of Health renders assistance in matters of medical selection, and the Treasurer of the State is the treasurer of the Fund. The Secretary of State audits all accounts submitted to him for

63 State of Wisconsin, Laws of 1911, Chapter 577.
payment by the Audit Board. The members of the Audit Board consist of the Attorney General, the State Treasurer, and the Commissioner of Insurance.

The Fund offers the common types of insurance policies. Policies are issued in amounts of $500 or in multiples thereof up to $5,000, the maximum amount of insurance which may be issued on one life. Applicants must be residents of the State of Wisconsin at the time the policy is issued but, once the policy is in force, it is not affected by the insured's moving from the State. The Fund does not issue individual annuities.

The amount of insurance in force under the Fund has made little progress as compared with the amount of insurance in force with commercial companies. This lack of progress is apparently due to the lack of sales effort, including advertising.64

Factors Prompting the Program

The roots of the State Life Fund of Wisconsin are found in the disclosures made by the Armstrong Committee of the New York Legislature in 190565 and in the reports of


65 The Armstrong Committee, named for its chairman, Senator William W. Armstrong, was appointed to make a comprehensive inquiry into every aspect of the life insurance
investigations made by committees of the Wisconsin Legislature in 1906. One of the Wisconsin committees was appointed to investigate private life insurance companies, and the other committee was to study the feasibility of the adoption of a plan of state life insurance.\textsuperscript{66}

**Disclosure of abuses in State of New York.** The influence of the Armstrong Committee investigation upon the attitudes of Wisconsin legislators is indicated by the following excerpts from one of the Wisconsin committee's report on its investigation:

The experience of the American people with the great private life insurance companies, which have their headquarters in the east, has been very unsatisfactory. The joint committee of the senate and assembly of the state of Wisconsin, which was appointed last winter, to investigate the affairs of life insurance companies, says, in its report, "The daily press and magazines of this country for several years have been teeming with startling accusations of the corrupt and extravagant management of the great private life insurance companies of this country. The accusations became so specific and the agitation assumed such a form that the

\begin{verbatim}
business in the State of New York. The investigation was prompted by a growing feeling of distrust toward the life insurance business. Allegations were made that life insurance companies were mismanaged and that their transactions were unscrupulous. The work of the Committee brought to light abuses where they were found to exist. Considerable legislation designed to correct many of the abuses was enacted after the investigation.
\end{verbatim}

\textsuperscript{66} Report of the Joint Committee of Senate and Assembly on the Affairs of Life Insurance Companies (Madison, Wisconsin, 1906), pp. 1-4.
legislature of New York appointed a joint committee to investigate and examine into the business and affairs of the life insurance companies doing business in that state. 67

The report further states:

This New York committee organized August 1, 1905, and held 56 open sessions at which testimony was taken and exposed scandals of such magnitude that it shattered some well-established reputations and shocked the moral sense of the nation. 68

It has been demonstrated by the disclosures in connection with this New York investigation that the policyholders of these great private insurance companies have been systematically plundered by the operations of these companies. 69

The report concludes:

In other words the investigation of our great private life insurance companies operating in America, has shown that they have practiced upon the American people, dishonest appropriation of funds, menacing manipulations of the political affairs of the country and gigantic fraud, it has therefore been demonstrated, that the private ownership and operation of the life insurance business, when viewed from the standpoint of interests of the people, is a failure. And its continuance assumes the proportion of a national peril. 70

The Armstrong Committee investigation convinced the Wisconsin committee that private life insurance was


68 Ibid.

69 Ibid.

70 Ibid., p. 3.
inefficient and corrupt. On the basis of the New York investigation, the Wisconsin Committee focused its attention on conditions in Wisconsin to determine whether similar conditions existed in the State.

Disclosure of abuses in Wisconsin. Similar conditions were found to exist in Wisconsin. The Committee reported:

For while the results of our investigations are not so startling in their exposures, yet we see the beginning of the same practices. Our companies in Wisconsin are smaller, younger, less extensive in operations and less powerful. But the germs of the evil of private ownership and operation are there. The nature of private ownership and operation and the purpose of it all, which has resulted in such prodigious fraud and injustice in the larger companies,—this nature and purpose are here in Wisconsin companies; and already the exposures disclose the fact that these companies are on exactly the same road as the larger ones, and if allowed to go on, will arrive at the same or similar results later on.71

The following specific abuses were reported found in the private life insurance companies of Wisconsin:

1. Salaries are out of all proportion to the services rendered.

2. The relatives of personal officers in the employ of the Northwestern Mutual company also receive salaries which are out of proportion to the services which they render.

3. The testimony given before your committee above referred to, shows the same tendency on the part of the Wisconsin Life Insurance companies to defraud the policyholders out of their rights, as has been shown by the bigger and stronger companies.

71 Ibid., p. 4.
4. Premiums on most classes of policy are unnecessarily high.
5. Unjust discriminations have been used by the company in such ways as to advance its interests and to the detriment of certain of its policyholders.
6. For a great many years the officers of this company were profiting by loans on the securities of the company's policies, opposed the correction of this abuse, and succeeded in deferring it for several years.72

The abuses disclosed in Wisconsin led the Committee to conclude

... that the experience of the American people with private life insurance companies, both nationally and in the state of Wisconsin, has proven the private operation of life insurance to be excessively expensive, inefficient, inadequate, fraudulent, and oppressive and having a tendency to corrupt legislation.73

The findings of the Wisconsin committees did not immediately result in the establishment of a State Fund. However, the committees did recommend legislation to increase the influence of policyholders in the management of the companies, to suppress rebating, to require complete reports on legislative expenses, to define the rights of the policyholders in the surplus, to limit expenses, to require standard policy provisions, and, in general, to secure more equitable treatment of policyholders. As a result of these recommendations, laws designed to secure

72 Ibid., pp. 4-6.
73 Ibid., p. 7.
these objectives were passed. These laws did set the pattern for the later establishment of the State Fund, and were significant in this respect.

The reason why the State Fund was not established in 1906 or 1907 was due to the fact that the majority report of the Wisconsin Committee appointed to study the feasibility of such a fund was against the immediate adoption of the fund plan. The Committee thought that the idea needed more intensive study, particularly on such matters as the advantages and disadvantages of a State Fund. The minority report favored state life insurance as well as state sickness and accident insurance, and invalidity and old-age insurance. Because of the disagreement among the committee members, no action was taken on the proposals for a State Fund until June 7, 1911, when the law creating the State Life Fund was passed.

Summary of factors prompting program. The State Life Fund of Wisconsin was the direct outgrowth of the insurance scandals disclosed by the Armstrong Committee of the New York Legislature in 1905, and the disclosures of similar conditions in the State of Wisconsin by investigating committees in that State.

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The Wisconsin investigating committees concluded that the business of life insurance could not be handled properly by private life insurance companies in such a manner as to serve the interests of the public, and that a state plan would be more desirable. While the state fund plan was not immediately enacted, legislation was passed designed to correct certain abuses of the private life insurance companies in the State. This legislation served to set the pattern for the eventual establishment of the State Fund in 1911.

Nonoccupational Disability

Introductory Description

There is no standard terminology used to describe the risk discussed in this section. The insurance programs designed to cover the risk have been referred to by such terms as temporary disability insurance, sickness compensation, disability compensation, unemployment compensation, disability benefits, cash sickness benefits, and other terms. Nonoccupational disability is descriptive of the risk, is widely used, and is adequate for the purposes of this discussion.

Four of the five nonoccupational disability insurance programs established by government in this country are state plans; the fifth is a national system for railroad workers.
The four state plans provide partial wage-loss compensation for limited periods to wage earners who are unable to work because of nonoccupational illness or injury. Employees contribute to the cost of the plans in all four of the states providing this form of insurance. Only employees contribute in the states of California and Rhode Island. The rates vary from one half of one per cent of the first $60 of weekly wages in New York to one per cent of the first $3,000 of annual wages in California and Rhode Island. Membership in the plan is required of all employers who fall under the membership requirements of unemployment compensation. The only exception to this requirement is in the State of New York where employers of four or more persons on each of thirty days in one calendar year are covered under the plan. Generally speaking, a worker will be eligible for benefits if he meets the requirement for eligibility under the unemployment compensation act of the particular state. In each state the minimum and maximum weekly benefits are identical with those of that state's unemployment compensation benefits. The four state plans provide partial wage-loss compensation for limited periods to wage earners who are unable to work.

Rhode Island started this type of government insurance in 1942; California established its program in 1946, New Jersey in 1948, and New York in 1949. In addition, Congress extended the Railroad Unemployment Insurance Act
in 1946 to provide cash sickness benefits to workers covered by that law. Attention is given below to the development of these programs.

Early Legislative Influences

Nonoccupational disability insurance in the United States is of comparatively recent origin; but interest in the subject and attempts to establish programs were made as early as 1910-1920. Programs have been proposed on both the federal and state levels of government.

Interest was first displayed in state nonoccupational disability insurance with the introduction of state workmen's compensation plans in the period from 1911 to 1920. Workmen's compensation systems commonly provide cash benefits, medical care, and rehabilitation benefits in some states for covered wage earners who suffer certain work-connected injuries. These provisions stimulated a movement for a government program to cover the costs of nonoccupational illness and injury.

The American Association for Labor Legislation created a National Committee on Social Insurance in 1912. The primary purpose of this Committee was to encourage and promote social health insurance investigation and to promote legislation at the state level. The Committee drafted a model health insurance bill in 1915 which was introduced in three states in that year and in twelve
states in 1917. None of the bills was passed by both houses of any legislature.

The interest stimulated by the passage of the workmen's compensation laws and the efforts of the American Association for Labor Legislation resulted in the creation of special commissions of inquiry by eleven states during the period 1915-1920. A majority of the commissions reported favorably on the subject and found that there was a fundamental need for nonoccupational disability insurance as well as for medical care insurance. As one writer stated: "The case for compulsory health insurance was fully made up by the eleven reports of official state commissions. It seldom happens that the evidence is so overwhelmingly one way."

The supporting arguments set forth by the above commissions were as follows:

1. Experience had shown that the majority of wage earners would not voluntarily insure themselves against the perils of sickness and injury.

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75 Nonoccupational disability insurance is concerned with partially making good the loss of income due to nonoccupational injury or sickness. Medical care insurance is concerned with providing medical care services during the period of illness.

2. The health insurance protection available through mutual benefit associations, fraternal organizations, and commercial insurers was inadequate because of its high costs and limited coverage.

3. The inadequacy of existing health insurance protection perpetuated conditions which would be unjust both to workers and to the community as a whole. A compulsory plan of insurance against the perils of injury and sickness would relieve economic distress due to these perils as well as stimulate preventive action. The community would gain through the reduction in dependency, misery, and crime.

Interest in the subject of nonoccupational disability insurance disappeared after 1921 because of prosperous times and was not renewed until the depression of the early 1930's. The early legislative proposals described above remained, however, as influences on subsequent developments in this field.

Federal Action Prompting Programs

Effects of Social Security Act

Renewed interest. The need for some kind of insurance program to meet the costs of sickness was one of the subjects emphasized by the Committee on Economic Security in 1934. This Committee suggested that cash payments for nonoccupational disability might be tied in with the
administration of unemployment insurance programs. The reason for a suggestion of this nature lies in the fact that the Committee, despite its emphasis on the seriousness of the problem of injury and sickness, worked in an environment of general public apathy and organized opposition toward any program of health insurance. On the other hand, there was universal agreement on the need for unemployment insurance, and immediate legislation on this subject was essential. The Committee, therefore, took the path of least resistance and recommended that cash benefits for nonoccupational disability be included with the unemployment insurance programs.

The Social Security Act did not, however, contain any nonoccupational disability provisions. The reason for this failure was explained by one writer as follows:

There was no affirmative action in the Social Security Act, however, because to the wage earners of this time, inability to find jobs because of adverse economic conditions or advancing age constituted a more serious threat to their economic security than sickness or disability. Providing protection against costs of sickness that are more or less recurring regardless of economic conditions did not seem to have the same urgency as providing protection against cyclical unemployment and old-age dependency.77

The passage of the Social Security Act did, however, prompt a greater public interest in the possibility of

providing a governmental program of nonoccupational disability insurance by bringing the subject to the attention of the public and thereby stimulating discussion of it. An Interdepartmental Committee to Coordinate Health and Welfare Activities appointed by the President reaffirmed the desirability of such a program of insurance and called attention to the possibility of its development along lines similar to unemployment insurance. 78

Influence of unemployment insurance provisions of Act. The unemployment insurance provisions of the Social Security Act had several unintended effects which prompted the development of state nonoccupational disability insurance plans. First, the establishment of unemployment insurance programs in all the states meant that the covered worker found himself protected against part of his wage loss when he was able to work but could not obtain a job, but unprotected against an exactly similar loss when he was unable to work. The experiences of many wage earners who were denied unemployment insurance benefits or whose unemployment insurance payments were stopped because of sickness brought to light the realization that it was illogical and inequitable to provide benefits against unemployment due to lack of work but to make no provisions

78 Ibid.
against unemployment due to disability when financial needs may be even greater. Attention was drawn by labor leaders to this inconsistency and the gap which existed in unemployment insurance protection during periods of disability. The above situation prompted the quicker development of nonoccupational disability insurance. 79

Another effect of the unemployment insurance provisions of the Social Security Act which was responsible for the increasing interest in nonoccupational disability insurance was financial in nature. Several states, among them California, New Jersey, and Rhode Island, financed their unemployment insurance benefits through a tax on employees as well as through a tax on employers. The relatively low level of unemployment subsequent to the passage of the Social Security Act, and the still further decline of unemployment in the early forties resulted in the accumulation of large reserves in the unemployment insurance funds. Employee taxes were found in most instances to be unnecessary for unemployment insurance purposes. States found themselves, therefore, with a source of income that could conceivably be diverted to nonoccupational disability benefits without requiring any additional contributions from employers, employees, or the state. 80

79 Ibid.
80 Ibid., p. 12.
funds, plus the fact that in most states unemployment compensation was paid for entirely by employers, gave rise to activity on the part of labor to divert employee contributions to finance a disability insurance program."\footnote{Osborn, Grant M., "Compulsory Temporary Disability Insurance in the United States" (unpublished doctoral dissertation, The University of Pennsylvania, Philadelphia, 1955), pp. 63-64.}

\textbf{Knowland Amendment of 1946.} The movement for non-occupational disability insurance was further prompted in 1946 with the passing by Congress of the Knowland Amendment. The Amendment permitted any state which had levied an unemployment insurance tax upon employees at any time prior to the Amendment to use the accumulated money to finance nonoccupational disability insurance benefits. Since Alabama, California, New Jersey, and Rhode Island had taxed employees for the longest periods of time, the Amendment affected these states more so than other states. The Amendment made possible the transfer of workers' contributions under state unemployment insurance programs to the payment of disability benefits. This made considerable

\footnote{\textit{Alabama has not enacted a nonoccupational disability law, however, because its average duration of unemployment benefits payments has been consistently higher than the national average. Such a situation does not permit the accumulation of any sizeable surplus in the unemployment insurance reserve account out of which such a program might be financed.}}
splits of money available to state nonoccupational disability programs and permitted benefits to begin at once. 83

Amendments to Railroad Unemployment Insurance Act

Provisions for cash benefits during temporary disability were added to the Railroad Unemployment Insurance Act of 1946. There were no additional contributions required to finance these provisions because of the increased size of the unemployment insurance reserve fund. It was believed that the fund was sufficient to support both unemployment and disability payments without additional contributions. 84 One writer aptly stated the significance of these amendments when he wrote:

This legislation represented the first disability insurance enacted at the federal level. It is believed that these laws stimulated support for state disability legislation from those groups opposed to increasing federal governmental activities. 85

Private Disability Insurance Plans

The increasing number of sickness benefits plans provided by private industrial and business concerns to their employees has had considerable influence on the

83 Ibid., p. 64.
84 Ibid., p. 62.
85 Ibid.
development of nonoccupational disability insurance by the government. The value of these plans has been recognized by many employers, and they have provided them voluntarily for their employees. Employees themselves have oftentimes initiated the plans. The trend is to greater demands from employees for extension of benefits under such plans. The popularity of these private plans has prompted government to take action in this field when demands have been made for legislation to establish such a program.

State Disability Insurance Plans

While it is beyond the scope of this study to analyze in detail individual state programs of insurance, brief attention is given below to the factors which prompted the enactment of nonoccupational disability insurance plans in the states of Rhode Island and California. Two reasons account for the individual consideration given to these states: first, Rhode Island was the first state to establish a governmental program of nonoccupational disability insurance; and, second, the development of the governmental program in California followed a considerably different approach from that of Rhode Island. The relative importance of the state of California, plus the fact that the plan adopted there was more acceptable than the

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86 Ibid., p. 65.
Rhode Island plan to a large majority of the supporters of the disability insurance movement, resulted in the California program having a considerable influence on subsequent developments in the country.

Rhode Island

The nonoccupational disability insurance program in Rhode Island was presented to the legislature on March 18, 1942, and was passed on April 23. The program is carried out in conjunction with the Unemployment Insurance System, is administered in the same agency, and provides coverage for the same workers. The program is supported by a monopolistic state fund, to which two-thirds of employees' contributions are diverted for the purpose of nonoccupational disability benefits. No other contributions are made to the fund. Benefits are in the form of weekly cash payments for lost time.

While Rhode Island was one of the states in which a large surplus had accumulated in the state unemployment reserves, this factor in itself did not account for the fast passage of the nonoccupational disability insurance program. The reasons for the swift enactment of the legislation have been described as follows:

Certain provisions of the bill explain the lack of opposition and the resulting speed of passage. Since there were no medical care provisions in the law, the medical profession did not oppose it. Employer groups offered no opposition—perhaps because no contribution on their part was called
for. Employees were not asked to make any additional contributions and could foresee a new benefit. Difficult to understand, however, was the complete lack of interest, not to say opposition, of the insurance industry. Various explanations have been offered for this apathy. Some have suggested that the industry believed the legislation had no chance of passage and so gave it little consideration. Others attributed it to neglect on the part of the industry's legislative representatives. Still others have thought that some in the industry may have believed this legislation would serve as a stimulus to greater demand for commercial disability insurance.\footnote{Ibid., pp. 66-67.}

The apparent conclusion is that the program was enacted because of two factors: first, the large reserves in the unemployment insurance fund of the State; and, second, the surprisingly lack of opposition to the plan in the legislature, because of the factors stated above.

California

The roots of the nonoccupational disability insurance program in California (referred to in the State as Compulsory Unemployment Compensation Disability Insurance) are found in the factors already discussed in the above sections as influencing the general movement for such programs, namely, the dissatisfaction of labor with the tax on workers when most states did not require workers to contribute to the cost of unemployment insurance; the excess accumulated reserves in the unemployment insurance fund;
and, the development of sickness benefits plans by private industry.

The legislative development of the California program, however, followed quite a different course from that of Rhode Island. Disability insurance plans had been submitted to the legislature in 1941, 1943, 1945, and, finally, in 1946, when the present program was enacted. Special studies of the subject had been made by legislative committees in 1942 and 1944.

The major part of the support and pressure for the California program came from organized labor, who proposed an exclusive state fund like that of Rhode Island. The bulk of the opposition to the proposal came from the insurance companies and employer groups. According to one writer,

A review of the events leading to the passage of the Unemployment Compensation Disability Act discloses the failure of the insurance business and other opposition groups adequately to evaluate the strength of labor.

Many factors pointed to adoption of a nonoccupational disability measure in the special session of the Legislature called for January, 1946. There had been no social security enactments for several sessions, and some felt that labor should be given

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something in this area. Interest in this bill was such that it had lost by only one vote in the 1945 session. Governor Warren exerted personal pressure and in January 23, 1946, message stated that "It is not possible for employees to obtain from private insurance companies protection against loss in wages or salary during sickness as adequately or cheaply as that protection could be obtained by diverting their present 1 per cent contribution for the support of a disability benefits program. Inasmuch as the legislative session was a special one, public attention was focused on the bill, and its opponents had few other measures on which to trade. Finally, the members of the Shelley Committee author of the bill were giving greater support to the bill as a result of their investigation of the problem.89

The final enactment of the legislation has been described as follows:

The original strategy of the opposition was to prevent passage of any bill proposing compulsory insurance. But as deliberations on the bill proceeded before the legislative committee it became apparent that passage was imminent. In a last minute endeavor to prevent passage of a bill that would exclude private insurance carriers, the opposition submitted a compromise amendment. This compromise accepted the principles of compulsion but permitted private insurance carriers to compete with the state fund. The compromise bill was submitted and passed with relative ease.90

Outlook

The outlook for the establishment of further governmental programs of nonoccupational disability insurance is good. There is a growing recognition of the need for this

89 Ibid., pp. 6-7.
90 Osborn, op. cit., p. 68.
type of coverage. While commercial insurers will continue to write this form of insurance, it is questionable whether these voluntary plans will be adequate to meet the need for the insurance in terms of benefits or extent of population covered.
CHAPTER III

PROGRAMS COVERING RISKS RESULTING FROM BUSINESS OPERATIONS

Introduction

Consideration is given in this chapter to the development of governmental programs which provide insurance against certain risks connected with commercial business operations. Major governmental programs in this area insure against the risks of occupational injury and disease, bank failures, transfer of title, and financial lending operations. The risk of unemployment was classified as a risk to personal security, and was discussed in the preceding chapter.

Occupational Injury and Disease

Introductory Description

Although workmen's compensation insurance may not, in a strict sense, be called a governmental program of insurance, the extent of governmental intervention and the existence of state workmen's compensation funds in a number of states, is sufficient to justify the inclusion of the topic in this study. Also, since workmen's compensation legislation was the earliest form of such insurance in the
United States, its philosophy and development has been given consideration in the enactment of other forms of governmental insurance programs at later dates.

Every state has passed laws establishing systems of workmen's compensation. The states have jurisdiction in this field because of the relatively narrow conception of federal government authority in the period when the majority of the laws were enacted. The state laws provide that an employer must provide insurance for compensation of workers injured on their jobs and, in some cases, include job-connected diseases as a part of the coverage. Depending upon the state law, the insurance may be purchased from a state fund, a private company, or both. Self-insurance is permitted in some states.

Hindrances to Early Legislation

The enactment of workmen's compensation in the United States came late in comparison with the European countries. The adoption of the idea was the culmination of a long series of legislative experiments with accident compensation laws, which in turn were the result of gradual advances toward a more progressive outlook in the fields of social, economic, and legal philosophy. While the principle of workmen's compensation seems to have first been adopted on a limited scale in Prussia on November 3, 1838, and then by England in 1897, American interest in European legislation
was slow to develop. There were a number of interrelated factors accounting for this delay, the more important of these being the following:

1. Economists and workers in the United States had little knowledge of European plans of workmen's compensation.

2. The majority of workers in America had been trained to look to liability legislation for relief.

3. There existed a "gambling spirit" among workers which led them to look forward to large speculative awards for their injuries.

4. A fear existed among employers that any compensation scheme would adversely affect them in interstate competition.

5. A system of government which prevented the enactment of one over-all plan but rather depended upon the actions of separate state legislatures.

Lack of Knowledge

Abraham Epstein, in his "Insecurity--A Challenge to America," states that "the compensation movement was at first received with complete indifference." This in part was due to the fact that news coverage of European plans

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was inadequate. The only news in the American press about European experiments with social insurance between August of 1897 and April of 1898 was about the defeat in Switzerland of proposed compulsory sickness and accident insurance.  

Students of economics were concerning themselves primarily with economic theory, problems of trusts, and corporation finance, and were little interested in the practical problems of industrial life. There were no strong organized groups advocating a compensation philosophy. As Rubinow states, "all suggestions for a radical change along lines tried in Europe were impatiently discarded, either because of ignorance of European conditions, or because of a childish conviction that there was nothing we could learn from Europe." This lack of knowledge resulted in a lack of interest in the compensation idea among workers as well as economists and other professional groups. Consequently, there was little impetus to the concept.

**Dependence upon Liability Legislation**

As a result of the lack of knowledge concerning the compensation principle, workers and economists alike

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labored under the assumption that strengthening of liability laws was the best American solution to the problem of industrial accidents. The attitude of labor organizations was to train workers to push for stronger liability laws—measures which would give the workman greater rights against his employer for personal injury—and to reject any effort to introduce compensation legislation. The emphasis, then, was purposely directed by labor organizations away from any progress toward the compensation idea.

Gambling Spirit of Workers

The lack of knowledge and the indoctrination among workers toward liability legislation resulted in their developing a gambling spirit toward the rewards for injuries. Large verdicts in favor of injured workers had become common and were being upheld in courts of appeal. Though the verdicts were large, the employee won in only about 5 per cent of the cases. It was to the worker's advantage to take his chances with a jury and perhaps receive a large judgment in his favor rather than subscribe to any system which would give him certain compensation.

\[4\] Ibid., p. 157.
but in small amounts. Such a spirit among workers worked strongly against the introduction of a compensation plan. 5

Fear of Interstate Competition

A special study committee recommended to the Massachusetts legislature in 1903 the passage of a comprehensive compensation program, but the proposal was rejected on the ground that such a law would place an exceptional burden on the manufactures of the state and would cripple them in competition. 6 The rejection of the compensation idea based on this argument, coming as it did early in the development of the philosophy, "for many years exercised a powerful influence in retarding compensation legislation. . . ." 7

Political Organization

The fact that the governmental structure of the United States is composed of individual states, each having separate and independent legislatures, made it difficult to enact one over-all compensation system. The industrial states naturally would have greater interest in labor legislation than the less industrial ones, but even in the


7 Rubinow, Social Insurance, p. 158.
former a large number of the legislators were extremely conservative and were opposed to any radical changes in the existing laws of liability. Rejection of the compensation idea in one state had a strong influence upon the actions of legislatures in other states. This necessity for independent state action was a particularly retarding influence in states which were normally quite progressive in their labor legislation. The progressive states were simply against imposing their industries with burdens which industries of the more conservative states were not obligated to carry.

**Judicial Objections**

There were three objections to the compensation plan based on the grounds that it was unconstitutional. The first objection was that the plan violated the "due process" clause of the Constitution because employers were forced to pay compensation in cases where they were not at fault. Such a requirement meant the taking of property belonging to one person and giving it to another person, a situation which was not permitted under the Constitution. Secondly, the plan deprived both parties of the right of trial by jury since the purpose of the compensation idea was to eliminate the need for judicial determination of liability. The final constitutional objection to the plan was that it conferred judicial functions on an executive officer. This
objection was based on the fact that the compensation law would be administered in all its details by the state insurance commissioner.

It was necessary to overcome each of these objections in each of the individual states. Such a process was time-consuming and served to retard the development of any compensation plan.

Factors Prompting Legislation

After a long period of history in which progress was slow due to the factors stated above, there was a sudden burst of legislative activity in the compensation field. Most compensation acts came into being between 1911 and 1919, with a few late ones coming between 1920 and 1939.

Commonly Acknowledged Factors

There were two factors prompting this activity which are widely known and may be found in any textbook on insurance.8 These two factors were the rapid industrialization of the United States after 1900, and dissatisfaction on the part of the public with the existing legal remedies for compensating losses due to industrial accidents. Consideration is given below to each of these factors.

Rapid industrialization. The problem of industrial accidents in the United States became particularly acute as a result of sudden industrial growth after 1900 and the accompanying introduction of newer and more dangerous machinery. The accident rate in the United States had become greater in the years 1907 to 1908 than in any other industrial country, and one observer of the scene stated that "the factory has become more dangerous than the battlefield." This caused large losses in wages and production and considerable expenditures for medical care. In addition, the new industrialization had brought about a variety of occupational diseases which were resulting in the loss of a large number of man-hours and an accompanying loss to society. The industrial accident situation was a major factor in the evolution of workmen's compensation.

Dissatisfaction with legal system. The usual method of dealing with the industrial accident problem was based on the common law principles of negligence and civil suit, a system designed for small-scale industrial organization. The worker's right to secure indemnity for industrial injury and wage loss depended upon his bringing a case to court and winning it. The process of bringing a case to

court was costly, and the odds were against the worker winning it.

The common law principles of negligence were based upon the assumption that occupational injuries were always the result of someone's fault, and that the person at fault should bear the costs. The responsibility of the court was to determine who had been at fault. If the employer alone was at fault, then he had to bear the entire costs. If, on the other hand, the worker was at fault, he no longer had any claim upon the employer or upon society for financial indemnity or medical care.

The worker had the burden of proof in establishing the employer's negligence, a task which was often difficult, if not impossible, to accomplish. On the other hand, the employer had only to defend himself successfully against the charge of negligence.

The employer had three principal defenses which he could fall back upon in defending himself against suits arising out of industrial injuries:

1. The doctrine of common employment, or the fellow-servant rule.
2. The doctrine of the assumption of risk.
3. The doctrine of contributory negligence on the part of the injured workman.

Under the fellow-servant doctrine, the employee could not recover if it could be shown that the injury had
resulted from the negligence of a fellow employee. The doctrine maintains that the employee's fellow workers are the best judges of one's competence to perform a given task. The fellow workers have a responsibility to notify the employer of any misconduct, incapacity, or neglect of duty on the part of a fellow worker. If the employer does not correct the situation, the workers should resign and seek employment elsewhere. In any event, the employer was not to be held responsible for the accidents.

The assumption of risk doctrine stated that the worker could not recover damages if his injury was due to an inherent hazard of the job of which he had, or should have had, advance knowledge. The employee was held to have assumed the ordinary hazard of industrial injury when he accepted employment.

The doctrine of contributory negligence held that if an employee, injured through the negligence of his employer, was in any way guilty of neglect himself, he could not recover even if the employer was guilty of gross negligence. The rule was designed to prevent an injured worker from profiting from his own lack of care, but it applied regardless of the degree of negligence on the part of the employer.

The employer's defenses, therefore, were quite strong. It can be clearly seen that the position of the
worker under the common law was a poor one, both physically and legally.

The harshness of the common law doctrines used by employers against suits brought by workers resulted in a gradual modification of these doctrines by the courts and by statutes. The doctrine of common employment was modified by the vice-principal rule. This rule held that the employer would be liable for injuries caused by the failure of an employee to carry out some basic obligation entrusted to him by the employer. This means that the fundamental responsibilities of the employer cannot be evaded by his delegation of authority to another employee.

Another modification of the common law doctrines was achieved by the superior servant rule. Under this rule, the employer was held responsible for the acts of a superior servant if at the time of the accident he had actual control over the employee injured. A similar modification was the doctrine of con-association, which stated that fellow-servants are not in common employment unless their duties bring them into association in such a degree that they can exercise influence over each other.

A final modification of the common law doctrines of negligence was achieved through the rule of comparative negligence. This rule states that in situations where there has been negligence on the part of both parties, the
injured party may still recover if his negligence was slight and that of the other party was gross in comparison.

Despite the modification of the common law doctrines of negligence by some courts, the public remained dissatisfied with the existing legal remedies and demanded corrective legislation. The states enacted statutes, known as "employers' liability laws," designed to restate or modify the rights and duties of employer and employee. The nature of this legislation was described as follows:

The legislation can be classified in three categories: (1) Statutes denying the right of employers and workers to sign contracts relieving the employer of liability for accidents, as a condition of employment. Twenty-seven states had legislated against such practice by 1908. (2) Statutes extending the right of suit in death cases. By 1904 this applied to 41 jurisdictions. (3) Statutes abrogating or modifying the common-law defenses.10

The employers' liability laws preceded as well as accompanied the compensation movement. The laws were never completely satisfactory, however, in terms of solving the problem of compensation for industrial injuries. They were limited in their application, they were most commonly aimed at removing the fellow-servant doctrine, and they were mainly confined to railroad workers and a few other extra-hazardous occupations, such as mining. The complications

and injustices resulting from the common law continued under employers' liability legislation.

The principal criticisms of the common law doctrines and the statutory modifications of these doctrines were as follows:

1. Recovery of damages was inadequate and uncertain. A great majority of workers received no compensation in court cases. There was wide variation among the awards of workers who did succeed in winning their case. "Some claimants received far too much, others far too little. . . . One reason accounting for this situation was the lack of a definite standard of measurement for determining the amount of loss in individual cases."\(^{11}\)

2. The wastefulness and the high costs of taking the case to court resulted in only a small fraction of any award actually going to the worker. Attorney's fees and litigation costs often consumed the largest part of any award the worker might receive.

3. The liability system was extremely slow in the settlement of claims. The judicial process sometimes took years to reach a final decision on a claim. Such a delay worked a considerable hardship on the claimant who was in need of immediate indemnity.

4. The employers' liability system hampered good labor relations because it destroyed the goodwill between the employer and employee. "The fact that an employer was encouraged to resist the employee created bitterness and misunderstanding. In the resulting struggle, both sides were sometimes led to employ wrongful practices, to manufacture testimony and to resort to all manner of fraud and dishonesty. This did not serve to promote a spirit of confidence or mutual trust but, instead, fostered a spirit of antagonism and widened the breach between capital and labor."  

Underlying Influences

Aside from the more widely acknowledged factors described above, there were a number of specific underlying forces prompting the establishment of workmen's compensation. Attention is focused below on these influences.

Educational work. Perhaps the first interest in compensation legislation came about as a result of studies made of European plans by various governmental commissions appointed for that purpose. Comprehensive studies were first made as early as 1893 by the United States Bureau of Labor, Fourth Special Report of the Commissioner of Labor, Compulsory Insurance in Germany. Prepared by John Graham Brooks. (Washington: Government Printing Office, 1893).
of Labor and again in 1898.\textsuperscript{14} The New York State Bureau of Labor published a study in 1899\textsuperscript{15} and following this there was a considerable amount written on the subject in popular magazines, official documents, and private studies. While little interest was shown in these first writings, they did influence a number of state legislatures to initiate studies of their own, thereby creating a wider knowledge of the European compensation idea in this country. Between 1905 and 1907, study commissions were established in the states of Massachusetts, Illinois,\textsuperscript{16} and Connecticut. The educational work of these commissions in enlightening state legislators about compensation plans may be said to have been a strong influence toward prompting the establishment of workmen's compensation in the United States.

**Private compensation plans.** In 1910, various large corporations in the United States had established private compensation plans or voluntary accident relief systems which attracted considerable attention. The fact that

\begin{itemize}
\item \textsuperscript{14} Willoughby, W. F., *Workmen's Insurance* (New York: Thomas Y. Crowell and Company, 1898).
\end{itemize}
these private plans came on the eve of the era of compensation legislation may account for their attracting so much attention but, nevertheless, considerable emphasis was given to them by reformers who wanted to consider all such schemes for a possible solution to the industrial accident problem.

The two most important of the private plans were those of the United States Steel Corporation and the International Harvester Company. These plans were extremely inadequate in terms of benefits. For example, the plan of the United States Steel Corporation placed a value of $300 upon the loss of an eye and $600 upon the loss of an arm or leg. Death benefits were limited to eighteen months' earnings for married men living with their families. The characteristic feature of this plan was its dependence upon length of service. The plan of the International Harvester Company was somewhat more liberal. Under this plan the compensation for the loss of an eye was placed at nine months' wages, the loss of a foot or arm was placed at one and a half year's wages, and death benefits were placed at three times the annual wages of the worker. For total disability, wages for two years were provided with a pension of $10 per month when the wage period expired.  

17 Rubinow, op. cit., p. 164.
While these plans were inadequate and only remotely resembled any real intent toward a true compensation system, they were significant in that they represented a remarkable change in the United States concerning the subject of compensation theory. The plans were tangible evidence of a movement toward workmen's compensation on a widespread scale.

**Spirit of social welfare.** A considerable change in social philosophy had taken hold in the United States in the early part of the nineteenth century. The change was described by Rubinow as

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\ldots \text{the growth of new democracy, that is, the growing social unrest, the demand for social justice, the growth of radical tendencies in American political and social life, undoubtedly due to such economic conditions as the enormous development of industry within the last fifteen years, and the general accentuation of all economic and social problems created by the monopolistic tendencies in industry and the rise of the cost of living.}^{18}
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Epstein characterizes the era as follows:

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\ldots \text{the movement for workmen's compensation crystallized during an era when American progressivism and liberalism were at their height. Between 1905 and 1915 the American public conscience was more deeply aroused and more ready to enact progressive laws than it has been since that time. In no subsequent social legislation have journalists, reformers, muckrakers, labor leaders, judges, lawyers and public-spirited citizens in general participated so actively as in the}
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\[18 \text{Ibid., p. 166.}\]
compensation movement. The atmosphere in the United States, as well as abroad, was charged, in the words of the President of the National Association of Manufacturers, "with the murmurings of discontent." The conservative Republican Party was seething with revolt. The country was filled with hate and bitterness against the trusts, while the Socialist Party and the labor organizations were at their most vigorous stages.19

It was during this era of social change that President Theodore Roosevelt stated:

It is neither just, expedient nor humane; it is revolting to judgment and sentiment alike that the financial burden of accidents occurring because of the necessary exigencies of their daily occupation should be thrust upon those sufferers who are least able to bear it. When the employer starts in motion agencies which create risks for others, he should take all the ordinary and extraordinary risks involved.20

This statement was sufficient to prompt positive action in the compensation field, and the following year, in 1908, the federal government established a compensation program for its civil employees. The Federal Employers' Liability Act is applicable to railway employees engaged in interstate commerce and provides an exclusive remedy for such employees. The Act excludes entirely the defenses of common employment and assumption of risk. The defense of contributory negligence is permitted only where the employer's violation of a safety measure has not contributed

19 Epstein, op. cit., p. 591.

20 Cited by Downey, op. cit., p. 146.
to death or injury. Whenever this latter defense is permitted, damages are based on the principle of comparative negligence. The Act, though rather inadequate, did give federal leadership and prestige to the movement and intensive interest quickly developed in the states.

**Enmity to capital.** It was stated earlier in this study that one of the retarding influences on the compensation movement was the fact that workers had developed a speculative spirit of looking to large jury awards for their injuries. This tendency may also be said to have been an influence prompting employers to become more receptive to the compensation idea. The tendency of juries and judges to look with favor upon injured workers was described as one of "enmity to capital." Under such an influence, the cost of liability for accidents began to rise for employers and the insurance rates for employers' liability began to rise as a consequence. Also, many insurance companies were refusing to accept extra-hazardous risks and often limited the amount of insurance on ordinary risks. The result was that employers and employers' associations came to appreciate the value of insurance and the advantages of a limited scale of compensation. The development

of a favorable attitude on the part of employers and their associations toward compensation undoubtedly was a strong pressure in the ultimate establishment of workmen's compensation.\textsuperscript{22}

**Burden to society.** There was a gradual recognition of the fact that a worker would not voluntarily provide himself with a fund from his earnings to take care of himself and his family during the period when he has suffered from an industrial accident. This meant that the worker would become a burden to society through his need for relief, and that this did nothing to increase his industrial or social efficiency.\textsuperscript{23} Workmen's compensation would relieve the burden to a certain extent, and this factor became an influence prompting the enactment of compensation plans.

**Summary**

The enactment of governmental workmen's compensation laws was a result of the gradual recognition that industrial accidents were a hazard to society as a whole and that existing methods of dealing with the hazard were

\textsuperscript{22} Rubinow, *op. cit.*, pp. 166-167.

inadequate. The primary motivating factors were essentially humanitarian based upon the philosophy that the worker was producing goods for society and that society, through the employer, was responsible for placing the worker in a position where he would be subject to accidents. General acceptance of this motive came about as a result of the times, an era of social unrest and radical tendencies due to rapid industrial expansion in the country.

The monetary influence was a secondary prompting factor in that employers' acceptance of the idea was based on what might be called a materialistic conception of the humanitarian motive. This was simply a recognition that compensation plans would be cheaper to them than the existing employer's liability system.

No one factor was entirely responsible for the establishment of workmen's compensation. The concept was prompted by a philosophy based on the recognition of changed social and industrial conditions working within a framework of remedies designed for a more simple society.

**Bank Failures**

There are two governmental corporations on the federal level which provide insurance for member banks against the risk of bank failures: the Federal Deposit Insurance Corporation and the Federal Savings and Loan Insurance Corporation. Attention is focused below on the
factors which prompted the establishment of these two corporations.

Commercial Bank Failures

The Federal Deposit Insurance Corporation was established under the Banking Act of 1933. The Corporation insures accounts of depositors in member commercial banks up to a maximum of $10,000 for each account. Participating banks pay a certain percentage of their deposits as a premium for this insurance. All federal banks are required by law to carry the insurance; the insurance is optional for state banks.

Insolvency of Banks in the 1930's

The large number of commercial bank failures in the early days of the depression and the effects of these failures upon the economic system of the country was the primary factor which prompted the establishment of bank deposit insurance by the federal government. The significance of this factor, and its influence upon Congressional action, is indicated by the following excerpt from the House of Representatives report on the subject:

The demand for this great reform insurance of bank deposits has become Nation-wide and has the support of an overwhelming majority of the bankers themselves. There can be no resumption of normal banking without such legislation. Experts advise us that more than 90 percent of the business of the Nation is conducted with bank credit, or check currency. The use of bank credit has declined to
the vanishing point. The public is afraid to deposit their money in the banks, and the banks are afraid to employ their deposits in the extension of bank credit for the support of trade and commerce. Business men and investors are victimized by the same fear. The result is curtailment of business, decline in values, idleness, unemployment, bread lines, national depression, and distress. We must resume the use of bank credit if we are to find our way out of our present difficulties.24

Additional emphasis was given to the above points by two outstanding university professors of that era. Professor Irving Fisher, Professor of Economics at Yale University, testified before the Congressional committee studying the banking problem as being "strongly in favor of legislation for guaranteeing bank deposits— even more important than stabilization legislation." Furthermore, he stated, "now is the time of all times for this great reform."25

Professor Thomas Nixon Carver, Professor of Political Economy at Harvard University, stated:

Credit will not expand again until confidence is restored. Confidence will not return until people believe that their money is safe when in a bank or when invested. They will not have confidence in banks until the Government guarantees


25 Ibid., p. 7.
bank deposits. This is a drastic measure, but nothing short of that will do.26

The Committee on Banking and Currency of the Senate showed similar attitudes toward the necessity for deposit insurance. The Committee reported that "within the past few years, the insolvency of banks has been a major cause of distress and business difficulty in all parts of the country. Protection of depositors and limitation of their losses through a bank deposit insurance corporation is one of several measures designed to remedy this problem."27

The report further stated:

The great number of banks now in the hands of receivers has created a situation in which a very large number of persons are unable to meet their obligations and in which many business houses are embarrassed through inability to get the use of their funds. In the natural course of events it would be a long time before these conditions are very greatly relieved through the liquidation of these closed banks. The continued postponement of liquidation is a very heavy burden upon a large portion of the community. In order to provide against a repetition of the present painful experience in which a vast sum of assets and purchasing power is "tied up", we have recommended the creation of a Federal bank deposit insurance corporation to liquidate the assets of closed member banks of the Federal Reserve System and, on and after July 1, 1934, to insure the time and demand deposits of such

26 Ibid., p. 6.

banks which have subscribed to stock of the corporation.\textsuperscript{28}

Summary

Governmental insurance of commercial bank deposits was prompted as a direct result of the insolvency of banks due to the depression of the 1930's. Because of the crucial role of bank credit in the economy, Congress deemed the reopening of the closed banks as an essential step toward recovery from the depression. The solution of the problem was to instill confidence in banks, so that the public would place their funds in them, and banks in turn would extend credit for the support of commerce. It was expected that deposit insurance would give this element of confidence, as well as serve as a reform measure to prevent similar occurrences in the future.

Savings and Loan Association Failures

Governmental insurance of accounts in savings and loan associations was established through a rider attached to the National Housing Act of 1934. The Act created the Federal Savings and Loan Insurance Corporation, which originally provided insurance for accounts up to $5,000, but was increased to $10,000 in 1950. All federal savings and loan associations are required to have their accounts

\textsuperscript{28} Ibid.
insured. State-chartered associations may elect to have their accounts insured if they meet certain stipulated requirements. The requirements have mainly to do with solvency and operating practices. The insurance provides only for the safety of investments and not for their liquidity.

Reasons for Enactment of Program

As indicated above, the insurance of accounts in savings and loan associations was only one part of a broad national housing program designed to stimulate recovery from the depression. The Congressional hearings on the over-all program, however, brought out the specific factors which prompted the insurance plan of the program—as aside from the general objective of recovery. These specific factors are discussed below.

Effect of insured bank deposits. The establishment of deposit insurance for commercial banks in 1933 through the Federal Deposit Insurance Corporation resulted in a substantial withdrawal of funds from investment in savings and loan associations to deposits in banks where they would be insured. The advocates of savings and loan insurance maintained that because of the conservative lending practices of commercial banks the funds were for all practical purposes being hoarded and not being put to work in the mortgage market to stimulate recovery. It was
maintained that not only principles of fair treatment but the economic necessity of keeping funds from flowing out of institutions where they are needed and into institutions where they would be unused called for the erection of a system of insurance for savings and loan associations comparable to that then in operation for the protection of bank depositors.29

The necessity of maintaining an adequate flow of savings into these institutions was emphasized by the fact that savings and loan associations normally furnished financing for 60 to 65 per cent of the small individual homes of the country. Furthermore, new loans were normally available from this institution up to 70 or 75 per cent, while commercial banks made only 50 or 60 per cent mortgages. If funds were not available to these institutions for mortgage lending purposes, then it was maintained that there would be continued pressure for an indefinite expansion of the Home Owners' Loan Corporation to absorb the whole home mortgage field of some $20,000,000,000.30

Effect of postal savings. Postal savings accounts were also drawing funds away from savings and loan


associations. It was pointed out during the hearings on the legislation that postal savings was a good thing in its original conception in that it provided a savings institution for the foreign-born people who had been accustomed to dealing with government-sponsored banks in Europe. The depression had resulted in the institution becoming a banking system, and this was considered to be a detriment to privately-conducted institutions.31

Protect savings of wage earners. It was recognized that savings and loan associations as well as the savings departments of commercial banks were essentially the savings institutions of the wage earner—the small man who puts in $2.50 to $5.00 a week. Figures brought out during the hearings showed that there were about eight savers in these institutions to every borrower. The desire for protection of these people was emphasized by John H. Fahey, chairman of the Federal Home Loan Bank Board, when he stated:

> In our judgment, it is not only necessary that thrift should be encouraged, and that these institutions should be put in a position to help, but we also believe that if there is any class of savers in the United States who should receive the maximum of protection so far as their savings are concerned it is the class of workers. From every standpoint, therefore, in our judgment

31 Ibid., p. 264.
there ought to be an insurance plan for these institutions.32

**Government responsibility.** At one point during the hearings on the proposed legislation, the question was raised as to why the savings and loan associations could not organize their own insurance arrangements and go ahead without being federally placed and whether government should have entered the banking problem in the first place. The question was answered by Morton Bodfish, Executive Vice President of the United States Building and Loan League, as follows:

As an economist I think the Government had a distinct responsibility on March 4 because our principal problem was the weakest commercial banking system in the world, which had been developed largely by the government and under Government sponsorship, and there was no other vehicle for stopping the situation which was developed.33

The influence and extent of such thinking was evident throughout the hearings in that the question of government's role and responsibility in the housing finance field was never seriously raised with the exception of this one instance. Even in this instance the members of the investigating committee supported the answer of Mr. Bodfish, and the question was quickly passed over. It was clearly recognized that the problem was one affecting the general


welfare of the nation, and that government was the only agency which could provide corrective measures.

Confidence. As with the earlier deposit insurance plan for commercial banks, the essential element of instilling confidence in the entire financial structure of the country was a major factor prompting the deposit insurance for savings and loan associations. It was recognized that if the public ever lost confidence in any one financial institution, others would suffer as well. It was hoped that the insurance would instill confidence not only in the public but also in the managers of institutions whose accounts would be insured. This would give managers the courage to operate their associations in as nearly normal fashion as possible, even when economic conditions were unfavorable.

Summary

Governmental deposit insurance for savings and loan associations was an outgrowth of the depression. More specifically, it was one of numerous measures designed to stimulate the housing segment of the economy and thereby speed recovery. Savings and loan associations were a major source of mortgage funds for the small home-building field. Deposits were flowing out of these uninsured institutions into insured commercial banks, where they were not being
put to work in the home mortgage field. The establishment of deposit insurance for these institutions was designed to increase confidence in them and thereby increase the flow of funds into the home mortgage field. The pattern for such a program of insurance was set the previous year with commercial bank deposit insurance; government's role in such action was never seriously questioned—national economic stability was involved.

Transfer of Title

Nature of Program

The insuring of land titles in the United States is handled predominantly by commercial title insurance companies. In a number of states, however, there exists a system of public land title registration, called the Torrens System, which, as a part of its operation, contains an "assurance" or indemnity fund which is maintained by the state.

The Torrens system provides that any person or persons having a fee title interest in real estate may have this interest registered with the state. Application for registration is made through a designated court of law.

34 California, Colorado, Georgia, Illinois, Minnesota, New York, North Carolina, Nebraska, Massachusetts, Ohio, Oregon, South Carolina, South Dakota, Utah, and Virginia.
The court, upon receipt of the application, refers it to a title examiner. The title examiner reports the result of his examination to the court and notice is then given by the court to all persons who appear from the examination to have an interest in the property. If the title is approved by the examiner and no adverse claims are established, the court directs the recording officer to register the title and to issue a certificate of registration of title. A fee is charged for registering the title, and these fees are accumulated to create an assurance fund. The fund is used to compensate persons who are deprived of their interests in registered property. In effect, the state guarantees the character of title in much the same manner as title insurance companies.

The system is essentially one of "title registration" rather than an insurance program; the insurance concept was not a part of the original system. The system originated in Australia in 1858 and then spread to England, where in 1897 the assurance fund was added to the system. The first Act in the United States was passed in Illinois in 1895, but the system has only been successful in this country in terms of widespread use by property owners in Massachusetts and Cook County, Illinois.
Philosophy of the Assurance Fund

The philosophy supporting the establishment of the assurance fund aspect of the system was based on two considerations: (1) There was early recognition in England that registration of title alone did not give adequate protection to parties who suffer damages when deprived of their interests in property as a result of the system. Accordingly, a fund was established to provide compensation in such cases; and the fund remained a part of the system in the United States. (2) Commercial title insurance companies' policies limited their liability to the face amount of the policy, and this may not be sufficient to protect the owner if there is an increase in the value of the property through any cause.35 These were the two original basic factors which prompted the inclusion of the insurance idea in the Torrens System.

The justification for the state creating and maintaining the fund is based on the fact that under the Torrens System the state has the sole authority to transfer and vest title by the issue of a certificate. This certificate is declared by state statute to be conclusive evidence

35 It should be noted, however, that in some states, particularly New York, the county is not behind the assurance fund. Compensation for damages is limited to the amount of money in the fund. Such a situation means that, even under the Torrens System, a claimant might not be able to recover compensation except after an indefinite period of time.
of an indefeasible title to the land. The state, therefore, is guaranteeing the title, and a fund is created by the state to pay damages to any person injured as a result of its action in issuing the certificate. 36

Factors Prompting System in Illinois

There were peculiar reasons for the interest and initiative of Illinois and of Chicago in enacting the Torrens System. These reasons were explained by a writer for "The Wall Street Journal" as follows:

The great fire of 1872 with its destruction of records, had reduced conditions practically to the primitive basis of a newly settled country. The only real estate records that had escaped the fire were in the possession of the Chicago Title Insurance Company. Certain insurances involving great values and large possible constructions of ownership antagonized public opinion. This led to the demand for the Torrens Law which followed. 37

Financial Lending Operations

Introductory Description

Governmental insurance of real estate mortgages was established under the National Housing Act of 1934. The insurance was to provide partial compensation to lenders who suffered losses on real estate loans due to the failure


37 Ibid., pp. 16-17.
of borrowers to repay the loans. The basic objective of the program was to stimulate recovery in the construction industry. The insurance was a means of accomplishing this objective by transferring much of the risk of mortgage lending operations from the shoulders of private lenders to the federal government. The availability of such insurance would, therefore, prompt lenders to make more money available for loans to be used in the construction field.

Title I of the National Housing Act of 1934 permitted the federal government to provide such insurance to lenders who made loans for home improvements, alterations, and repairs. Any lender using this title was given free insurance up to 20 per cent of the amount of any loan made for the above purposes. The maximum amount of insurance for each loan was $2,000, and the loan was to have a maximum maturity of five years. The loans were basically character loans, and borrowers were not required to give mortgage security.

Title II of the National Housing Act of 1934 set up a system of mutual mortgage insurance to protect lenders against loss due to failure of borrowers to repay the loans. The insurance applied specifically to loans made for the construction of new houses. The federal government charged the borrower an insurance premium for insuring mortgages made by private lenders, and these premiums were expected to eventually build up reserves sufficient to put
the Title II mortgage insurance program on a self-sustaining basis. Originally the amount of the insurance provided was limited to 80 per cent of the appraised value of the property on which the mortgage loan was to be made and insured. The interest rate on the loan was fixed at 5 per cent, to which could be added a .05 per cent charge for expenses involved in servicing the mortgage, and a charge of 0.5 per cent of the original amount of the loan for the insurance premium. The lender had to use a monthly-payment direct-reduction first mortgage with a maximum maturity of twenty years.

Need for Legislation

The urgent need in the United States in 1934 was for the recovery of the country from the depression. It was recognized by Congress that a substantial impetus to recovery and a sizeable relieving of the unemployment situation could be accomplished by a nation-wide program of home construction and modernization. The construction industry constituted a major segment of the economy, and the greatest amount of unemployment at that time existed in this industry. In addition, there had been practically

no new construction in the country for over five years, and there then existed an economic demand in this field. Such a housing program was also considered to have a "lasting benefit in the form of better homes and consequent better living conditions. To promote and perfect a program of this sort becomes both a government duty and a governmental opportunity."39 Home modernization and repair was to serve as an immediate stimulant, while the home construction feature of the program was to provide for long-range employment and stability after immediate needs had been absorbed.

The main deterrent to such a program was the fact that prospective borrowers were not anxious to commit themselves on loans at that time, and lenders were hesitant to release investment money which would be needed to carry out the program. The building boom of the 1920's had resulted in excessive speculation in the financial field, and many abuses arose in the mortgage market. Lenders were caught with large portfolios of bad mortgages, while borrowers had lost their properties because of their inability to pay the excessive financing charges and high down payments on short-term mortgages.

39 Ibid.
Reasons for Enactment of Program

One reason for governmental insuring of mortgages was to encourage lenders to release funds for work in the construction field, thereby providing employment and creating a revival of demand for products of the durable-goods industry. Through insurance, the government offered to lift much of the financial risk of mortgage lending from the shoulders of private lenders.

Another reason for the enactment of the program was to correct the abuses in the mortgage market arising out of the existing methods of mortgage financing. Lending policies based on high down payments, high financing charges, and short-term mortgages had resulted in borrowers losing their properties in times of stress. The National Housing Act of 1934, while essentially a recovery measure, also was designed to be a reform measure. The reform was accomplished by requiring lenders who used the insurance provisions of the Act to make loans only on a long-term amortized basis with a fixed low rate of interest. In addition, since insurance was provided up to 80 per cent of the amount of the loan for new construction, this eliminated the need for high-cost secondary financing. It was anticipated, therefore, that the insurance feature would contribute toward the establishment of a sounder mortgage market in the future by encouraging lenders to make loans based on the above plan.
Typical of the testimony prompting the program was the following statement by the president of the Johns-Manville Corporation, a firm which had had considerable success with its own plan of insuring loans for sales to its customers:

The portions of this act providing for mortgage insurance and the establishment of mortgage associations, as well as the insurance of building and loan association deposits, should promote a flow of private capital into the most important part of the construction industry and return the employment within this industry to a better balance with that of other industries. The effect should be pyramided many times beyond the direct influence upon the construction industry and the durable-goods industries through the stimulation of purchasing power of this group with resulting effect upon every industry in this country. This plan serves to eliminate many of the mortgage evils of the past, resulting in unwise speculation and excessive mortgage money costs, which have frightened private capital away from investment in this field during the past few years.40

Further testimony revealed:

It is an underlying purpose of this act to make mortgage money available where there is now a shortage and to make that investment more profitable by reducing the cost of obtaining mortgage money and eliminating the unsound practices of the past. Capital invested in land and building declined from an average of $61,000,000 a month in 1926 to practically zero in 1933. Any man who has attempted to obtain mortgage money on worthwhile property from almost any source in the past few years can testify to his ability to obtain such a loan regardless of the worth of the property.41

40 Ibid., p. 291.
41 Ibid., p. 289.
By opening up new sources for mortgage money where it is not now available and by insuring mortgages on new and existing homes, this bill should again induce private capital to make an investment where in the past few years it has been unprofitable and even hazardous.\(^\text{42}\)

\(^{42}\) Ibid., p. 290.
CHAPTER IV

PROGRAMS COVERING PERILS OF MANMADE
AND NATURAL DISASTERS

Introduction

Governmental insurance of losses resulting from manmade disasters is provided by programs covering the perils of war, the operation of automobiles by financially irresponsible motorists, and atomic energy. Insurance of natural disasters covers the perils of crop failure and flood. Consideration is given in this chapter to each of these programs, with the exception of the atomic energy peril program. Since the governmental program of insurance covering the atomic energy peril is the focal point of the study, consideration of that program is taken up in detail in the succeeding two chapters.

Manmade Disasters

War Peril

Introductory Description

Governmental life insurance for members of the military services was established on October 6, 1917, as an amendment to the War Risk Insurance Act of 1914. The program was designated as United States Government Life
Insurance (USGLI). The legislation began an insurance program which became "probably one of the most spectacular developments of life insurance."\(^1\) The total amount of insurance applied for under the program exceeded the total amount of insurance in force with all the commercial life insurance companies in the country at that time.\(^2\)

Insurance on the lives of military personnel was again provided by the government in 1940, with the passage of the National Service Life Insurance Act of 1940. Legislation was recommended to the Congress by the President on September 14, 1940, and the Act became law on October 8, 1940, as a part of the Second Revenue Act of 1940.\(^3\) There were no Congressional hearings on the Act, and relatively little consideration was given to its provisions.\(^4\)

The insurance provided under the National Service Life Insurance program was essentially the same as that provided under the earliest program in 1917. The only changes made were to adjust certain provisions regarding premiums, reserves, disability benefits, and other

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\(^2\) Ibid., p. 185.


actuarial matters. In general, the provisions of the new program were considerably more liberal than in the original program.

In 1951, a gratuitous indemnity plan\(^5\) was substituted for National Service Life Insurance for those in active service, with a provision for conversion to National Service Life Insurance after termination of military service. The indemnity was provided for persons ordered to, or in, active military service for more than thirty days. They were covered as long as they were in the service and for a period of 120 days after discharge. The amount of the coverage was $10,000 less any amount of NSLI or USGLI in force at the time of the death of the insured.

Reasons for Enactment of Programs

Protection of American foreign trade. The roots of government life insurance are found in the Bureau of War Risk Insurance, created in 1914 under the War Insurance Act. The Act was originally designed to provide insurance protection to shipowners for damage or loss to their vessels and cargoes due to war risks. As a result of the outbreak of war in Europe in 1914, the marine insurance

\(^5\) The Servicemen's Indemnity and Insurance Act of 1951, Public Law 23, 82d Congress, was signed by the President on April 25, 1951, and became effective on the same date. Strictly speaking, the protection is a gratuity and not an insurance contract.
industry was unable to provide coverage for shipowners and merchants to protect their interests against losses due to war-like actions. Congress considered the unavailability of marine insurance to be a deterrent to American foreign trade at a time when such trade was of considerable importance to the country. The Bureau of War Risk Insurance was created as a government agency within the Treasury Department and was designed to supplement the inadequate facilities available in the commercial insurance market. The agency was to have only temporary powers and was to provide insurance only for vessels, freight, and cargo.\(^6\) The omission of life insurance was due to the fact that the United States had not entered the war at that time, and the problem of insuring military personnel had not arisen.

**Inadequacy of pension system.** When the United States entered the war, there developed a general national concern over the need for a comprehensive system of financial assistance to the families of military personnel and for some kind of compensation to men incurring disabilities while in the service. The usual method of handling such a problem in earlier periods of hostility, such as the Civil War, was through governmental pensions. The pension

system, however, had been subject to political influences and was considered undesirable and inadequate as a satisfactory solution to the problem. One writer commented on the pension system as follows:

The pension system reached its climax of absurdity and inequity in the United States in the period following the Civil War, when pensions became the tool of political aspirants, were used to buy votes, to curry favor with patriotic constituents, and to support distant relatives of long-dead veterans whose claims upon the public gratitude were of the slightest.

Unavailability of commercial insurance. President Woodrow Wilson instructed that a special committee be established to study the question of providing financial assistance to members of the military services and their dependents. It was decided early in the committee hearings that insurance on the lives of all military personnel would be a significant factor in any program of war relief. A major deterrent was the fact that military personnel were not insurable by private insurers. In light of this fact,


8 Van Doren, Durand H., Workmen's Compensation and Insurance (New York: Moffat, Yard and Company, 1918), pp. 266-267. Van Doren also stated that the pension system was "a system little differentiated from poor-relief." (p. 266).
the committee invited representatives of the commercial insurance industry to join in the hearings.

The major plan proposed by the committee was to permit military personnel to insure with private insurers of their own selection. The government would bear the expense of the extra premium. This seemed only reasonable and fair since the government was responsible for creating the extra hazard to the men by calling them into service. The plan was acceptable to the insurance companies, who even offered to refund any excess premiums not needed for actual mortality costs. The only stipulation required by the insurance companies was that the government would guarantee any deficiency in the fund. This again was reasonable in view of the fact that neither the government nor the insurance companies had any statistical data from which to develop expected mortality costs.\(^9\)

A number of factors, however, prevented the plan from receiving favorable consideration. The most important of these factors were as follows:

1. Hesitancy of the government to lend its endorsement indiscriminately to all insurance companies. Approval of an insurance policy with a private company and payment of premiums to that company by the government might have been interpreted as an endorsement of the company and its operating policies. To protect itself against such an assumption, the government would have had to make

\(^9\) McGill, "op. cit., pp. 4-5."
a thorough investigation of all companies writing contracts on the lives of servicemen. Such examinations would have been wholly impractical because of the lack of time and personnel; moreover, the states would probably have viewed them as an encroachment on their prerogatives of insurance supervision.

(2) Problem created when a choice of companies was not indicated. It was conceivable that men entering the service would indicate a desire for insurance, but that they would have no convictions as to the best company. In that case, the selection of a company would devolve upon the government. Unless an exceptionally fair method of allocating such insurance was devised, charges of favoritism and discrimination would surely have followed.

(3) Attitude toward insurance companies. Insurance companies had never been popular with legislative bodies or the courts. Moreover, memories of the Armstrong Investigation of 1906 were still vivid in the minds of the solons and the general populace. It would have been difficult to get a measure through Congress which appeared to favor insurance companies, even though no favorable treatment was involved. The government had never insured its physical property with commercial companies, and it was reluctant to establish a precedent by insuring the lives of members of its armed forces with private insurers.

(4) Attractiveness of a plan of government insurance. The risk was ideally suited for assumption by the government. The men were a limited class, and but for the war they would have been very desirable risks. A favorable mortality experience, with the exception of the war hazard, could be expected. Furthermore, the government would not have a number of items of expense that private carriers must assume. There would be no commissions to agents, which bulk relatively large in the acquisition costs of commercial insurers, as the Army and Navy would use their organizations to sell the insurance. No fees to medical examiners would be necessary, since the men would undergo a rigid physical examination upon entry into service. There would be no special investment expenses, inasmuch as the funds would be invested in government securities. There would likewise be no taxes. The only expense which remained for the
government to incur was that of the actual administration of the insurance business, and that could be charged as a general governmental war expense.10

Since the offer of private insurers to participate in the insuring of military personnel was rejected, the only alternative was a governmental program. The government plan finally decided upon was one providing voluntary contractual insurance in which the individual would have a choice of whether to accept the insurance offered by the government or decline it. The premiums were net, that is, they did not include a charge for expenses, as the government was to bear all costs of administration and assume the excess mortality and disability costs arising from the risks of war.

The selection of this plan was due to a combination of social and economic factors. Payment of a premium by military personnel would make them more conscious of their protection. The premiums would also lighten the costs of the insurance to the government, but this was not considered to be a major factor. The plan was similar to commercial insurance in that it gave the insured a freedom of choice. This was thought to be more in accord with the American way of life.11

10 Ibid., pp. 5-6.
11 Ibid., pp. 7-9.
There was general opposition to the plan by commercial insurance companies, mainly due to the fear that the plan would be a step toward more governmental participation in the insurance business. Despite their opposition, Congress established the program based on the voluntary feature. The legislation was approved by Congress on October 6, 1917, as an amendment to the War Risk Insurance Act of 1914.\textsuperscript{12}

**Reduction of costs.** The Servicemen's Gratuity program in 1951 was prompted by a general dissatisfaction in Congress and elsewhere with the operation of the existing program. There was considerable criticism from the public about the government being in the insurance business. In addition, it was found that it would actually be cheaper for the government to provide a free indemnity than to establish the elaborate machinery of an insurance program. Members of Congress decided, therefore, that since the costs of administration of NSLI were greater than the net premiums retained, a program providing for the payment of indemnities would be more desirable from a cost viewpoint. Also, it was felt that the amendment would serve to protect the families of those military personnel who might not

\textsuperscript{12} 40 Stat. L. 408 (1917); 38 U.S.C. 422.
elect the insurance, as well as the ones who did elect the insurance under NSLI.

Automobile Operation Peril

The Problem

The automobile accident problem arises from the tremendous increase in the number of automobiles on the roads and the consequential great social and economic cost caused by automobile personal injuries and property damage. The National Safety Council reported in 1955 that the total economic cost of motor vehicle accidents in the United States amounted to $4,700,000,000.\textsuperscript{13}

The most serious aspect of the problem is the need for formulating an equitable basis of allocating and funding the financial losses arising from automobile accidents. Any solution to this problem involves the question as to what extent government has the responsibility to see that drivers are financially responsible and that innocent victims of automobile accidents are indemnified. The answer to this question requires consideration, first, of the basic philosophy supporting governmental responsibility for the problem, and, second, the reasons prompting the establishment of specific governmental programs for handling the problem.

Basic Philosophy Supporting Governmental Responsibility

The basic premise underlying governmental assumption of responsibility for the problem of the uncompensated victim of an automobile accident is that the problem is fundamentally social in nature. This philosophy is based on a belief that the uncompensated accident victim creates a social problem and that government has a responsibility to eliminate this problem. "This philosophy has as its basis the governmental assumption of the hazards of life. . . . it assumes the fundamental premise that the government must guarantee that risk in respect to an individual's health and safety must be eliminated."\(^{14}\)

Specific State Programs and Reasons for Enactment

There are five types of programs on the state government level which are designed to remedy the problem of the uncompensated automobile accident victim. These programs are financial and safety responsibility laws, compulsory automobile liability insurance, unsatisfied judgment funds, automobile compensation insurance, and impoundment laws. Consideration is given below to the reasons prompting each of these programs.

Financial and safety responsibility laws. Every state has some kind of automobile financial and safety responsibility law. The laws provide that when the operator of a motor vehicle is involved in an accident he shall have his right to operate the vehicle suspended unless he can furnish evidence of financial responsibility. Such laws are not standard, but they can be divided into three types. The first type provides that an owner of a vehicle involved in an accident may have his driving right restored by submitting proof of financial responsibility for judgments arising out of future accidents. This is commonly called the "first bite" or "one bite" law. The second type of law provides that an owner of a vehicle involved in an accident must submit security if he wishes to have his driving right restored. This means that he must either obtain a release of liability signed by the defendant or produce evidence of his financial ability to pay for the existing judgment. This plan is commonly called the "security type" law. The third type of law requires evidence of financial responsibility both for a current judgment and for future judgments.

There were two basic reasons for the enactment of financial and safety responsibility laws. One reason was a belief among the public and legislators that the laws would serve as accident prevention measures. It was thought that by penalizing the negligent operator of a motor vehicle the
law would thereby encourage a degree of safety responsibility. The other reason, closely tied in with the first, was that by requiring evidence of financial responsibility on the part of motor vehicle operators the number of uncompensated automobile accident victims would be reduced.

**Compulsory automobile liability insurance.** Massachusetts was the first state to enact an automobile liability insurance plan. The law provides that no motor vehicle may be registered unless the owner can show his financial responsibility for bodily injuries resulting from his negligent operation of the vehicle. This financial responsibility may be shown by depositing $5,000 in securities with the State, by depositing $5,000 cash, or by producing a security bond in a specified amount or a policy of automobile liability insurance. Policies terminate with the vehicle registration period. Rates are fixed each year by the State Insurance Commissioner.

New York enacted the New York Vehicle Financial Security Act, which became effective January 1, 1957, as an addition to its Safety Responsibility Law. The Act requires that policies must cover both bodily injury and property damage with $10,000/$20,000/$5,000 limits and must apply anywhere in the United States and Canada. Policies do not need to terminate with the vehicle registration period. The State does not engage in setting rates.
There were two basic reasons prompting the Massachusetts law. First, it was a logical consequence of a drive for the adoption of automobile financial and safety responsibility laws which had reached a peak in 1925. This drive had been motivated by public concern over the high rate of automobile accidents, a problem which had existed since 1905 shortly after the introduction of the automobile. In Massachusetts, it was found that less than 50 per cent of the vehicles were insured in 1927 when compulsory automobile insurance was established. Second, it was maintained that since the State had the right to regulate the operation of motor vehicles, the State also had the right to compel financial responsibility of motorists. Such compulsion was considered by legislators to be necessary in order to solve the problem of the uncompensated accident victim.

Unsatisfied judgment funds. There are seven unsatisfied judgment funds in Canada and two in the United States— in North Dakota and in New Jersey. The North Dakota law went into effect in 1948, and the New Jersey law became fully effective in 1955.

The purpose of unsatisfied judgment funds is to establish a fund for payment of unsatisfied judgments arising out of automobile accidents. A government agency administers the fund, except in New Jersey, where a board
made up of representatives of insurance companies and the State operates the fund. Financing of the fund varies. North Dakota collects a special fee of $1.00 on automobile registrations. The New Jersey law originally provided for a special registration fee of $3.00 for uninsured vehicles and $1.00 for insured vehicles and an assessment of one-half of one per cent against the net direct written automobile insurance premiums of commercial insurers. In 1956, because of objections raised by New Jersey motorists to the unfair tax, the legislature was forced to drop the $1.00 fee charged against insured motorists and now charges an $8.00 fee against uninsured motorists.

The unsatisfied judgment fund assumes liability only for claims above a minimum and below a maximum amount. Limits in New Jersey, for example, are $5,000/$10,000/$1,000, with a $200 deductible. Investigation and defense of claims against the fund are provided by insurers free of charge.

The main argument supporting the establishment of unsatisfied judgment fund plans is that they provide a means of closing the gaps left by either a safety responsibility law or a compulsory insurance law. It is maintained that the fund provides a surer means to an automobile accident victim of collecting a judgment because the fund is there to compensate him. It was maintained that the victim, under other types of plans, would oftentimes not take legal action if he thought the automobile owner did
not have insurance. This would mean that the victim would remain uncompensated for his loss, while the negligent automobile owner would be back on the road again with little inconvenience to himself. The unsatisfied judgment fund, it was pointed out, would therefore close the gap in existing plans.

**Automobile compensation insurance.** No state has adopted a plan of automobile compensation insurance. The Canadian Province of Saskatchewan has a modified version of this plan. Under the Saskatchewan plan, all motorists registered in the Province must pay a fee of $5.00 per vehicle plus a personal premium of $1.00 for each driver. The fees are accumulated in a fund from which benefits are paid regardless of fault for persons injured in automobile accidents. Death benefits to dependents of persons killed in such accidents are also provided by the law. The maximum limit of benefits is $3,000.

There are two interrelated reasons set forth in support of the compensation plan. First, it is maintained that the legal doctrine of negligence and liability has outlived its usefulness in the field of automobile insurance, and that these doctrines oftentimes operated to prevent recoveries by accident victims. This, it is maintained, is true regardless of whether the motorist was insured.
The members of the Saskatchewan Committee who studied and proposed the compensation plan in this Province felt that, all other things being equal, liability insurance could not give victims of automobile accidents any protection other than that they already had under the basic laws of liability. It was also the Committee's view that motor vehicle accidents were becoming not so much a matter of negligence or lack of negligence, but rather a matter of chance. Liability doctrines, therefore, were not suited to the growing complexity of our civilization.

Second, proponents of the compensation plan maintain that the automobile accident problem is similar to the problem of industrial accidents and should be handled in the same manner. It is pointed out by proponents of the plan that accidents are inevitable, whether in industry or in the operation of motor vehicles. It is maintained that industry has long accepted the major financial burden of the cost of industrial accidents through workmen's compensation. Therefore, the major financial burden of all automobile accidents should be borne by those who benefit from the operation of motor vehicles. 15

Impoundment laws. There are no impoundment laws in the United States, but three Canadian Provinces have such laws—Alberta, British Columbia, and Manitoba. The laws provide for the removal of motor vehicles from the use or control of the owner if financial responsibility cannot be proved at the time of the accident. The vehicle is not released until the owner produces evidence that he has satisfied the insurance requirements of the law.

Two reasons are given by proponents of such a law. First, it is pointed out that the plan is a further device for increasing the number of insured vehicles in the jurisdiction of the law. It is estimated that the number of insured vehicles in the Canadian Provinces has increased to approximately 95 per cent since the law was enacted. Such a law, it was stated, would encourage motorists to carry liability insurance and thereby reduce the number of uninsured motorists. Second, it was held that such a law would lend itself to a dramatic presentation to the public of the necessity of financial responsibility and the serious chances an automobile owner takes when he drives without insurance.
Natural Disasters

Perils to Growing Crops

Introductory Description

Governmental insurance on growing crops was established by the Federal Crop Insurance Act in 1938. The insurance is offered by the Federal Crop Insurance Corporation, an agency of the United States Department of Agriculture. The original Act covered only wheat crops; the Act was amended in 1941 to include cotton. The insurance was suspended in 1944, but reinstated in 1945 on an expanded basis. An amendment in 1947 reduced the scope of the program to an experimental basis, while in 1949 and 1953 provisions were again made for expansion in terms of crops covered, but still on an experimental basis. 16

The insurance covers essentially all natural causes of loss to growing crops, including drought, flood, hail, wind, frost, winterkill, lightning, fire, excessive rain, snow, wildlife, hurricane, tornado, insect infestation, plant diseases, and any other unavoidable causes as may be determined by the Board of Directors of the Corporation. The insurance does not cover the risk of financial loss due to low prices.

The insurance is voluntary, and the farmer is charged a premium. The original Act provided for payment of the premium "in kind," but this was later changed to a monetary basis. The premiums are supposed to be adequate to cover losses and to provide for a reserve. The operating costs of the program are borne by the taxpayers, as the costs are not included in the farmer's premiums. The rate varies widely by areas depending on (1) the crop insured, (2) the risk of the area, and (3) the amount of insurance per acre. Since the insurance is still on an experimental and developmental basis, it is not available on all crops in all areas to all farmers. Roughly, the insurance of a crop is effected by guaranteeing the farmer a certain amount of production, and if the production amounts to less than that, he is indemnified for the shortage.

Early Interest in the Subject

The United States Department of Agriculture was long interested in the possibility of crop insurance and conducted research work on the subject with varying degrees of intensity over a period of about twenty years prior to the establishment of the federal program in 1938. Active research was started early in 1936. The Agriculture Adjustment Administration had acquired a large amount of information on wheat and cotton yields on individual farms incident to its adjustment programs. The data for wheat
were tested and analyzed to see if it might provide an actuarial basis for crop insurance. The results soon showed promise of yielding reliable and useful figures, and funds were allocated to carry on studies for all important wheat-producing sections of the country and to start work on other crops, particularly cotton and corn.17

Reasons for Enactment of Program

There were a number of factors prompting the establishment of this program. Consideration is given below to the major reasons behind the program.

Unavailability of insurance. The early interest of the Department of Agriculture in crop insurance was based partly on the fact that insurance was not available in the commercial insurance market. Insurance on an "all-risks" basis for growing crops was considered impractical by private insurers because (1) the risks to be covered are indefinite and (2) the insurance would cover loss of crops due to drought. Losses from drought can extend over wide areas and can be catastrophic in nature.

Hail insurance on growing crops had been written in many parts of the country for many years by private

insurers, and the trend in recent years has been to extend the policy to cover other perils in addition to hail. Hail insurance is not considered to pose a catastrophe potential

**Integral part of national agricultural policy.** The introduction of legislation in the Congress providing for a federal crop insurance program was partly due to the fact that the insurance was not available from commercial carriers, and partly the result of the research efforts of the Department of Agriculture indicating the feasibility of such insurance. The most important factor, however, was that crop insurance would fit nicely into an over-all national agricultural policy of providing security for the farmer. The program was further justified as being in the interest of the general welfare of the country. In addition, it was also designed as one of the many measures of the 1930's to reduce the relief expenditures of the federal government. The introduction of the program, therefore, may be said to have been due to a combination of the factors of farm economics and politics. Elaboration of these factors is given below.

**Security for farmers.** One of the objectives of the Democratic Administration in power in 1938 was the provision of security for the farmers of the country. This, of course, was inspired by the recognition of the fact that the farmers constituted a strong political bloc. The
farmers already had acreage allotments, loans, and market quotas designed to give them "price security" and conservation payments to finance soil building. Crop insurance, it was pointed out, was a logical measure to give them "yield security." This reason was clearly stated at the time as follows:

Crop insurance fits into a national agriculture policy of utilizing a part of surplus production to maintain reserves of farm products and to stabilize income of farm producers. It extends to the hazardous business of wheat growing the insurance protection that other business have long enjoyed.18

The proposed program was recommended by a special committee appointed by the President, and hearings were held before a sub-committee of the Congress; but the legislation was never taken up on the floor of the House since the session was near an end. The legislation was included as Title V of the Agricultural Adjustment Act of 1938, and thus became a part of a broad national agriculture program inspired and promoted by the Administration.

National interest. It was noted on the preceding page that the expenditures for the administration and operation of the crop insurance program were not paid by the farmer. Appropriations for these costs were provided

by Congress, which meant that the taxpayer paid them. The philosophy prompting this aspect of the program was that crop insurance was in the interest of the general welfare of the nation, and the country should bear at least a part of its costs. It was stated that the program was designed not only to stabilize wheat growers' income, but also to establish reserve supplies of wheat to meet domestic requirements in case of serious crop failures.¹⁹

**Reduction of relief expenditures.** Another one of the major factors which prompted the enactment of federal crop insurance was the desire on the part of Congress to reduce the large relief payments which the federal government was having to make to farmers. Public relief expenditures in the years 1927 to 1936 had cost the government some $615 million. Droughts had been a particularly serious problem. There had been twenty-eight drought years since 1880, with twelve of the years resulting in droughts of major proportions. It was felt that crop insurance would help reduce the costs of such droughts to the government.²⁰

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¹⁹ [Ibid.](#), pp. 2-3.

Influence of unemployment insurance. The influence of an earlier governmental program of insurance was evident in the crop insurance plan. The following excerpt from a government publication indicates the thinking that crop insurance was considered to be a kind of farmer's unemployment insurance:

The city worker contributes a part of his salary each year to a Federal-State fund of unemployment reserves so when he loses his source of income--his job--he can draw on this fund for an income.

Crop insurance does the same thing for the farmer. He pays into a Federal fund so that when he loses the source of his income--his cotton crop--he draws upon the Federal Crop Insurance Corporation's fund for an income. Like unemployment insurance, which pays the worker in times of stress, so to are crop insurance indemnities paid farmers in times of stress--when their crops fail.21

Other stated factors. In addition to the above, there were numerous other reasons set forth in support of the program, and which influenced its establishment. It was contended that farming was a business just like industry, and as such it was only wise business practice to have some means of protecting its investment of money and labor through insurance as other businesses.

The insurance plan would help the farmer to obtain short-term credit which he often found impossible to secure. The insurance contract would serve as collateral.

21 Ibid., p. 4.
for a loan, and would assist the farmer in credit and planning. Finally, it was maintained that crop insurance would aid local communities through maintaining the farmers' purchasing power in times of stress. This factor was also tied in with the concept that the program was in the national interest. All of these factors, though perhaps minor in individual significance, were a part of the thinking of the Congress which enacted the crop insurance program.

Summary

Governmental crop insurance was established as a part of the national farm program of the Democratic Administration of the 1930's; an administration dedicated to providing security for the farmers. Politics may be said to have been partly responsible for the enactment of the program. There was also the factor of farm economics. Crop losses from major natural disasters, especially droughts, had cost the government millions of dollars in relief expenditures. In addition, the natural disasters had reduced the farmers' purchasing power, and this loss was being felt throughout the country. The above factors, plus the fact that crop insurance was not available from commercial insurers, combined to constitute the major factors prompting the establishment of the governmental program in this field.
Risks of Loss from Flood

The other major governmental program of insurance covering risks of loss from natural disasters is that of federal flood insurance and reinsurance, established under the Federal Flood Insurance Act of 1956. In addition to insurance and reinsurance provisions, the Act also authorized the establishment of a program of loans, and a program combining insurance and loans, to assist flood victims who entered into contracts with the Administrator of the Act.

The outstanding face amount of insurance issued by the Administrator under the Act must not exceed $250,000 per person, provided that the face amount of such insurance on any dwelling unit (including any structures and personal property connected therewith) shall not exceed $10,000. Each insurance policy issued by the Administrator must contain a loss-deductible clause relieving him from any liability for paying the first $100 of a loss, plus 5 per cent of the remainder, or such larger amount or percentage as may be specified by the Administrator. The aggregate amount of insurance and reinsurance outstanding at any one time must not exceed $3,000,000,000. This limit may be increased with the approval of the President by further amounts not to exceed $2,000,000,000 in the aggregate.
The insurance and reinsurance provided under the Act is not issued to cover risks against which insurance is available on reasonable terms from other public or private sources. In addition, the Act provides that the Administrator must use to the maximum practicable extent the facilities and services of private insurers in carrying out the program.

Under the loan provisions of the Act, the Administrator is authorized to guarantee any public or private financing institution against loss of principal and interest with respect to any loan made in connection with a flood loss. If a loan to finance a flood loss is not available from a financial institution, the Administrator is authorized to make a direct loan to the flood victim.

**Limited Availability of Insurance**

Private insurers, to a limited extent, offer protection against flood risks, but most of this protection is available only for movable or personal property. The only real property generally so covered are bridges and tunnels, which can be insured against flood risks as well as numerous other forms of risk under an all risk policy. All risk insurance on bridges and tunnels is justified because of the careful selectivity used by insurers in providing such insurance, following individual inspection and consideration of the exposure to risk. The flood component of
this exposure actually is said to form only a relatively small portion of the risks insured against under such a policy in most cases. Therefore, private insurers have been able to include the flood peril as a part of their all risk policies.

Comprehensive coverage is available for motor vehicles in the form of a third-party liability policy with an extended coverage endorsement. Inland marine policies cover merchandise in transit or on consignment. Cargo and equipment may be covered under other inland marine policies. Floater policies handle contractors' equipment, jewelry, furs, and certain other personal property. When a flood causes a fire, fire policies cover the loss. The standard extended coverage endorsement on a standard fire insurance policy insures, among other things, against direct loss by windstorm and hail.

The types of available insurance against the risks of flood as indicated above are limited, and are applicable only to special and relatively narrow fields. There is still a tremendously large amount of property for which private insurers presently offer no flood coverage. Owners of residential, commercial, and industrial real property

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cannot, generally, obtain insurance against flood damage to their buildings.

The reasoning which prompts private insurers not to enter into insurance of flood risks is well set forth in the May, 1952, Report on Floods and Flood Damage issued by the Insurance Executives Association as follows:

Because of the virtual certainty of the loss, its catastrophic nature, and the impossibility of making this line of insurance self-supporting due to refusal of the public to purchase such insurance at the rates which would have to be charged to pay annual losses, companies generally could not prudently engage in this field of underwriting.23

The Association concluded:

It is our considered opinion that insurance against the peril of flood applicable to fixed property cannot successfully be written and that any specific promise of indemnity for loss by flood must therefore be regarded as in the nature of a subsidy or relief payment, which are quite outside the scope of private business and of insurance. . . . As a long-range program, it appears that an accelerated flood-control program supplemented by such relief payments as are necessary on account of flood damage would be more in the interest of the public than a program of so-called flood insurance which could not be self-supporting.24

The report represented the outgrowth of a study of the feasibility of flood insurance undertaken by the Association following the floods in 1951 and 1952 in the

23 Ibid., p. 238.

24 Ibid., p. 239; the Association Report is also discussed in the Hearings on Federal Disaster Insurance, 84th Congress, 1st Session, pp. 757-759.
Midwestern United States. The Association engaged an engineering firm as consultants to study and report on the feasibility of rating flood insurance. The Association's view of the conclusions in the engineering report was stated as follows:

The report clearly demonstrates that on a purely theoretical basis specific flood insurance could be rated and could be written if certain fundamental requirements of insurance could be met. Practical considerations make it obvious that the fundamental requirements of insurance could not be met in a specific flood insurance undertaking and the committee has therefore reluctantly concluded that specific indemnity for loss by flood cannot be provided by insurance as such. 25

Early Governmental Measures

The stage for governmental participation in flood insurance was set in 1936 when Congress authorized a program of physical protective works as a measure of flood control. The reasons prompting this early program became an integral part of the philosophy prompting the flood insurance plan in 1956; in fact, the latter plan was considered more or less of an extension of the earlier program. The insurance plan was to be another means of minimizing the risk of loss from flood damage—an addition to the physical preventive measures already taken under the Flood Control Act of 1936.

25 Ibid.
Governmental enactment of the Flood Control Act in 1936 was based on the fact that floods were menacing the national welfare and that government had a responsibility to act whenever such a condition occurs. The philosophy prompting the early measure is clearly evident in the following declaration of policy by Congress at that time:

It is recognized that destructive floods upon the rivers of the United States, upsetting orderly processes and causing loss of life and property, including the erosion of lands, and impairing and obstructing navigation, highways, railroads, and other channels of commerce between States, constitute a menace to national welfare; that it is the sense of Congress that flood control on navigable waters or their tributaries is a proper activity of the Federal Government in cooperation with States, their political subdivisions, and localities thereof; that investigations and improvements of rivers and other waterways, including watersheds thereof, for flood-control purposes are in the interest of the general welfare; that the Federal Government should improve or participate in the improvement of navigable waters, or their tributaries, including watersheds thereof, for flood-control purposes if the benefits to whomsoever they may accrue are in excess of the estimated costs, and if the lives and social security of people are otherwise adversely affected.26

The same philosophy is evidenced in the Staff Study made for the Congressional committee considering flood insurance. It was pointed out in the Study that:

Natural disasters respect no State or local boundary lines. . . . They occur at widespread points throughout the Nation. They often impede commerce among the several States and with foreign nations. They damage post offices and post roads. At times they interfere with the common defense

and general welfare of the United States, and the collection of taxes, duties, imposts, and excises. They plague and discomfort disaster victims in their dual capacity as citizens of the United States as well as citizens of the State wherein they reside, in cases where they are either.

**Influence of Other Insurance Programs**

Another consideration which had an influence on the enactment of governmental flood insurance was the existence of other government programs which had incorporated the insurance or indemnity concept in their operations. These programs included the following:

1. Crop insurance;
2. Bank deposit insurance;
3. Savings and loan account insurance;
4. Housing mortgage insurance (FHA and VA);
5. Maritime vessel mortgage insurance;
6. Maritime cargo wartime insurance;
7. Aviation wartime insurance;
8. Veterans' life insurance;
9. Unemployment insurance;
10. Old-age and survivors' insurance;
11. Government employees' insurance;
12. Export-Import Bank tangible property insurance;
13. Mutual Security Act investment guaranty program;
14. V-loans guaranteed by federal government agencies; and
15. War damage insurance.

The War Damage Corporation, especially, was considered to be of "prime interest" and an "obvious precedent" as a "guidepost" in connection with the discussion of federal flood insurance. This was because the types of insurance it offered and the operating methods it employed.

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\[27 \text{Federal Disaster Insurance, Staff Study, op. cit., p. 251.}\]
were thought to be adaptable to flood insurance. The War Damage Corporation provided insurance and reinsurance against loss of or damage to real and personal property resulting from enemy attack. The Corporation had the power to determine rates and to establish conditions under which policies would be issued. The facilities of private insurers were available to the Corporation to assist it in carrying out its functions. 28

The influence of other governmental insurance programs was again shown in a letter of September 12, 1955, from Senators Kennedy and Saltonstall to their fellow Senators inviting cosponsorship of a flood insurance bill:

If this problem (flood damage) is to be met, without heavy Federal subsidies, increased relief expenditures, and continued loss of homes, productive facilities, and morale, Congress must establish some kind of Federal flood-insurance and reinsurance program, beginning as we did with the crop and war-risk-insurance programs on a small experimental basis. 29

Tax Losses

Considerable attention was given in the Congressional Staff Study and in the hearings on the federal flood insurance program proposal to the fact that floods result in heavy tax losses to all levels of government. Statistics were presented which showed that the federal government

28 Ibid., pp. 252-254.

29 Ibid., p. 261.
los heavily on income taxes because of unreimbursed flood losses deducted on the returns. There were additional tax losses to the federal government because of excise taxes lost due to interruption of the production of items subject to such taxes. It was pointed out that states, too, suffered similar income and excise-tax losses, depending upon the provisions of the respective state laws.

In addition, states and local public bodies also may suffer loss of sales-tax revenue to the extent that floods cause a decline in the number of taxable sales transactions. Local government would also feel the loss of property tax revenues due to a decline in assessed values of property for tax purposes, where such property is damaged or destroyed by floods and not replaced by property of equal value. Another possible source of tax loss would be due to the decline in profits, dividends, and wages suffered as a result of floods.

It was felt that a governmental flood insurance program would help remedy such a situation in the following manner:

To the extent any such tax loss would be avoided by an insurance or indemnity program for reimbursing losses of disaster victims that would otherwise result in tax losses, the insurance or indemnity program could incur a seeming deficit and still not result in net loss to the sponsoring governmental, taxing body. For example, for every dollar the Federal Government now loses in income tax due to unreimbursed disaster losses, that
Government could spend $1 in an insurance or indemnity program without increasing the net cost of the program to the Government.\textsuperscript{30}

The conclusion was reached by the Staff Study that:

In general, it seems warranted to conclude that all such taxing bodies stand to realize a net gain in tax revenues if natural disaster losses are reimbursed, reductions in property values minimized and interruptions to business productivity held to as low a level and for as short a period as possible.\textsuperscript{31}

Arguments for Federal Indemnity Plan

While it is difficult to say which of the below factors was most influential in prompting the federal flood insurance program, each of the points was brought up during the course of the hearings on the bill and, therefore, may be said to have at least entered into the over-all philosophy behind the program. The arguments are presented for the sake of completeness, and there is no intent to vouch for their validity.

1. The program would keep the credit of the flood victim sound; it would keep him from being left with debt and no assets.
2. Sound credit would enable the victim to make a quicker recovery, and with quicker recovery his net income would increase; this would increase tax income to governments.
3. Such a program would mean that expense could be saved on physical protective works, since these works would not have to be so elaborate.
4. The program would reduce relief expenditures.
5. Existence of an indemnity program with premium rates increasing according to the risk

\textsuperscript{30} Ibid., pp. 266-267.
\textsuperscript{31} Ibid.
anticipated would encourage less use of the locations subject to greater risk, thus reducing the potential amount in dollars of damage caused by a flood.

6. Such a plan would contribute to the peace of mind, morale, and feeling of self-reliance of the potential flood victim by affording him means of warding off the economic impact of disaster ahead of time.

7. By comparison of enterprise for profit, the federal government may operate the program on a breakeven (or even a subsidy) basis.

8. The federal government has means of raising funds to meet the sudden impact of disaster under a program in which total governmental liability is limited by statute. It is not subject to the same difficulty as would be a private insurer seeking to find ways of raising funds with which to pay off claims before a reserve has been built up.

9. A federal reinsurance program of the excess-loss variety with a high loss deductible feature and coinsurance by the government of the remaining portion of each loss to a pre-agreed percentage, should enable the insurer to confine its exposure to such a narrow, definite range as to make possible the fixing of low premiums. Also, any charge by the government would be low enough to induce the purchase of such coverage.

10. The problem involves an insurance where government can do for the people that which neither private industry nor they themselves can or will do for them—devise a workable flood insurance program.

11. Objections to certain features of the program can be met without discarding the opportunity to enact a feasible program.32

Summary

There were basically two reasons for establishment of the federal flood insurance program: (1) floods and the damages which they caused were deemed to affect the general

32 Ibid., pp. 268-269.
welfare of the nation and (2) flood insurance was not available from commercial insurers. Additional considerations involved the pattern already set by existing governmental insurance plans, the loss of tax revenues resulting from floods, the high cost of relief expenditures to flood victims, and the frequent recurring floods which kept the need for flood insurance in the public eye.
CHAPTER V

THE ATOMIC ENERGY PERIL

Introduction

The development and utilization of atomic energy has created a number of hazards. These hazards include those of fire, explosion, business interruption, and radiation. It is the radiation hazard, however, that is the most serious in terms of the potential losses that may occur. Consideration is given in this chapter to all of these hazards, but emphasis is placed on the radiation hazard.

The radiation hazard exists wherever there are radioactive materials present. The hazard is not new. Its dangers were recognized within a few years of its discovery at the turn of the century. Until recent years, however, the sources of the hazard were limited and the magnitude of the danger was not great.

The successful development in 1942 of a process called "nuclear fission" by means of a mechanical device known as an "atomic or nuclear reactor" created serious radiation problems. The problems, while not essentially new in nature, were of considerably greater magnitude because of the much wider variety and size of the sources of radiation. The hazard has had an impact on industry,
the public, private insurers, the national government, and
the state governments.

A description of the hazard as it is presently
understood is set forth below. First, the characteristics
of the hazard will be examined to serve as a background for
a better understanding of its ramifications. Consideration
is then given to the sources of the hazard. Finally,
attention is focused on the kinds of damage which might
result from radiation exposure, with emphasis on the
catastrophe potential, the probability of its occurrence,
and the probable magnitude of the damages it causes.

Meaning of Radioactivity

Definition of the Hazard

"Radioactive materials are those materials which
release energy either in the form of small, fast-moving
nuclear particles, or as energy rays similar to light. The
rays and particles released by radioactive materials are
collectively called 'radiation'."¹ Radiation occurs in
numerous forms--light, heat, and radio waves. It is a
natural phenomenon to which mankind has always been exposed
to a certain degree from the elements that make up the
earth and atmosphere.

¹ United States Atomic Energy Commission, Handling
Radioactive Wastes in the Atomic Energy Program, Revised
Types of Nuclear Radiation

The word radiation as used in the atomic energy industry applies to one particular kind—nuclear radiation. It is called "nuclear" radiation because it comes from the core, or the nucleus, of atoms. There are four kinds of nuclear radiation with which the atomic energy industry deals on a large scale. These are "alpha particles," "beta particles," "gamma rays," and "neutrons."²

Alpha particles are thrown off by radioactive elements such as uranium and plutonium. Tiny though they are—a hundred billion billion of them would be no larger than the head of a pin—these electrically charged particles are the largest natural radiation particles found in the atomic energy program. They have very little power of penetration since a few inches of air or even a sheet of paper will stop them.

Beta particles are much smaller than alpha particles (about 1/7200 as large in mass) and they carry an electrical charge. They are more penetrating than alphas, can travel several yards through air and penetrate up to a third of an inch of tissue.

Gamma rays are not particles like alphas and betas, but are waves of energy such as light or radio waves. They can travel hundreds of feet through almost anything solid (thick lead is an effective barrier against them). They are generated on a large scale in nuclear reactors.

Neutrons are nuclear particles about one-fourth the size of the alpha particles. Because they have no electrical charge they can travel many feet through solid matter and hundreds of

feet through the air, or can penetrate deeply into a person's body.3

The basic underlying factor of the hazard is that overexposure to all kinds of nuclear radiation can cause injury or death to the human body. The development of the atomic reactor has increased tremendously the possibility of such overexposure. "The intensity of radiation which causes serious damage to living cells is a minute amount compared with the intensity emitted from a nuclear reactor."4

"The advent of nuclear energy will change the question of radiation hazard from a localized to a possibly widespread general problem."5

Manmade Hazard

The magnitude of the radiation hazard is manmade. There are relatively few radioactive substances found in nature. The atomic reactor is a manmade device for creating a controlled mechanical process which enables large quantities of materials to be made radioactive through

3 Ibid.
artificial means. The result has been a greatly increased and more widespread use of all kinds and varieties of radiation sources within the past few years. "Some idea of the size of this problem may be gained by realizing that an operating nuclear reactor generates radiation equivalent to several hundred tons of the naturally radioactive element, radium. In contrast, only 3 pounds of pure radium have been made available in the whole world during the last 50 years."\(^6\)

**Half-life**

A characteristic of a radioactive material which has considerable bearing on the extent of the hazard it creates is its "half-life." The nature of this term is described as follows:

A radioactive material is radioactive because its atomic nuclei are disintegrating—that is, they are undergoing a process of radioactive "decay" by shooting out particles or gamma rays. The length of time that a material will remain radioactive is measured in terms of its "half-life," which is the period required for one-half of its atomic nuclei to give off particles or gamma rays and become more stable. Radioactive materials with very short half-lives are said to be relatively stable. A completely stable material is, of course, nonradioactive. An unstable material continues to "decay" until every atomic nucleus has reached a point of

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nuclear stability. When this point is reached the material is no longer radioactive.7

The "half-life" varies for different types of radioactive materials and may range from a matter of seconds to several thousands of years. In addition, "since radioactivity involves the nuclei of atoms, the rate of decay cannot be modified by any ordinary means."8 These characteristics mean that, first, different kinds of radioactive materials present different problems, depending on their half-life, and, second, the inability to change the decay rate sharply limits the methods for controlling and handling radioactive materials.

Sources of the Hazard

Activities involving radioactive materials center around two basic sources: production facilities and utilization facilities.9 Production facilities are installations where radioactive materials are actually made, which means that an atomic reactor is located on the premises. Such facilities, including the plant and the surrounding

7 Ibid., pp. 1-2.
8 Ibid., p. 2.
9 Another source is the development and testing of atomic weapons. This source of the hazard is not considered in this paper because any damage resulting from it is compensated for by the national government.
area, are commonly referred to as an "atomic installation."

Utilization facilities are any operations involving the use or handling of radioactive materials. These are commonly found in medical, industrial, and research institutions. Contract and common carriers which transport radioactive materials are also included in this classification.

Production Facilities

The operation of an atomic reactor creates a number of potential sources of the radiation hazard. These sources are as follows:

1. Fission products and radioactive substances are formed in fuel elements as burning takes place.
2. The coolant and structural elements of the reactors become radioactive under bombardment of neutrons resulting from the chain reaction.
3. Improper operation or failure of control elements may, in the absence of designed safeguards, lead to extreme power surges, a runaway reaction, or both, resulting in reactor destruction and scattering of radioactive materials.
4. Corrosion or other breakdown of fuel elements or other structural elements may lead to leakage of radioactive materials into the coolant stream or into the surrounding atmosphere.
5. Highly radioactive spent-fuel elements must be periodically removed from the reactor. After appropriate cooling periods they must be reprocessed at the site of the reactor or shipped to a central reprocessing plant. Waste fission products require packaging and disposal.\(^10\)

\(^{10}\) United States Congress, Joint Committee on Atomic Energy, Peaceful Uses of Atomic Energy, Volume 2, Background Material for the Report of the Panel on the Impact of the Peaceful Uses of Atomic Energy to the Joint Committee on Atomic Energy, 84th Congress, 2nd Session, January, 1956, p. 596, citing the staff digest of a meeting on the impact of the atomic energy industry on community health
Reactor explosion. Since an atomic reactor is a mechanical device, it is essentially dependent upon human personnel for its operation. Despite elaborate safety devices and the use of automatic controls it is possible that through a sequence of human errors there could be an explosive nuclear energy release sufficient in magnitude to destroy the reactor, possibly break the various containment structures within which it is housed, and wreck auxiliary machinery. "It appears impossible, as with any manmade device, to believe that a reactor can operate forever without some unfortunate occurrence taking place." 11

Such an accident would constitute a hazard to the personnel within the installation and could result in complete loss of the installation. There would be little hazard to the public from the explosion itself. A common misconception in the public mind is that an atomic reactor is essentially the same thing as an atomic bomb. This is not the case. A reactor cannot explode like an atomic bomb. This fact was emphasized by a member of the United States Atomic Energy Commission when he stated:


... we should dispose of the supposition that a gross malfunctioning in a power reactor could possibly lead to a devastating explosion similar to those produced by nuclear weapons. There is no conceivable way in which this could happen. Though a reactor contains the same nuclear materials as a bomb, they are in dispersed form, mixed with other materials, and they are not provided with the carefully devised means for bringing them together with great speed into the closely packed assemblage required for a bomb-type explosion.\textsuperscript{12}

If a reactor explosion should occur, the explosive effect would be no greater than the force of an ordinary chemical explosion. Such an explosion could result in damage within the installation but could not cause significant direct public damage beyond the boundaries of the exclusion areas around such installations.\textsuperscript{13}

M. A. Schultz of Westinghouse Corporation, speaking of the hazard with reference to nuclear power plants, reaches a similar conclusion concerning a reactor explosion:

It should be pointed out that technically possible accidents which might occur in a nuclear power plant are not so severe as might first be imagined. It is popularly thought that the principal difference between an "atomic bomb" and a nuclear power plant is one of control--in the first case the energy is given off instantly, in the second case it is given off slowly. In the


event of a failure of the control system the
obvious thought is that the power plant might
become a bomb. Hurwitz has indicated that a con-
siderable matter of degree is involved in a nuclear
reactor accident. Roughly, the damage caused in a
reactor accident would approximate the damage
cau sed by an amount of TNT equivalent in weight to
the amount of uranium in the nuclear reactor. This
accident obviously creates less damage than the
destruction wrought by an atomic bomb.14

Fuel fabrication. Any hazard resulting from the
manufacture of fuel depends largely upon the nature of the
fuel and the products with which it is mixed. Certain fuel
for atomic reactors, such as uranium and plutonium, when
blended together become highly radioactive and are extremely
dangerous. Operations involving such materials must be
carried out with extreme caution and in as remote an area
as possible. There is always the possibility of a fire or
explosion which could spread radiation. As long as the
atomic installation observes proper safety precautions, any
damage would probably be within the site area and not
spread to the public.15

14 Schultz, M. A., Control of Nuclear Reactors and
1955), pp. 5-6.

15 Murphy, Arthur W., Financial Protection Against
Atomic Hazards. An independent research project by the
Legislative Drafting Research Fund of Columbia University
for Atomic Industrial Forum, Inc. (New York: Atomic
Loss of coolant. Another source of a major accident in an atomic reactor is the loss of coolant. Such an accident could result from a break in the primary coolant circulating system or from a rupture of the reactor vessel itself. The loss of coolant would permit the heat from the decay of radioactive fission products to melt the uncooled fuel, even though the nuclear reaction has stopped. This could result in the release of volatile fission products. There is the additional possibility that the overheated fuel would react chemically with air entering the reactor; or, in the case of water-moderated reactors, the reaction would be with any water remaining in the reactor.\textsuperscript{16} "The consequences of a loss of coolant could be serious."\textsuperscript{17}

Waste disposal. The waste disposal problem is common in industry. Industrial plants are constantly faced with the problem of controlling smoke, fumes, and liquid wastes so as not to create a health hazard to the surrounding population. Wastes from atomic installations consist not only of the common chemical hazards but the more important radiation hazard.

"The hazard of waste disposal will, in the long run, probably be as great as the hazard from all other

\begin{itemize}
  \item \textsuperscript{16} Vance, op. cit., p. 9.
  \item \textsuperscript{17} Ibid.
\end{itemize}
sources.  Certain types of wastes constitute such a potential hazard to human beings that "one gram, properly administered, could cause the disability or death of thousands of people."19 The amount of waste from any given source may be small, but "the radioactivity is extremely high."20

Wastes from atomic installations occur in three forms: gases, liquids, and solids. Each form presents a source of radiation hazard through the channels of its disposal. "Materials that are normally gaseous can most easily result in atmospheric contamination."21 "Liquid wastes present the chance of contamination of areas into which the liquid passes, such as drinking water, sewerage system, and drainage system."22 "Some of the sources of solid radioactive material are contaminated clothing, trash, biological specimens, scrap metal and discarded equipment, including materials of construction of buildings."23 Each of these sources present the possibility of escape of substantial amounts of radioactivity.

18 Murphy, op. cit., p. 13.


20 Ibid.

21 Ibid., p. 294.

22 Ibid., p. 296.

23 Ibid., p. 300.
Dr. John R. Bradford, Director of the Radioisotopes Laboratory at the Case Institute of Technology, gives a somewhat comprehensive listing of the principal sources of radioactive wastes. This listing is presented below as additional evidence of the extent of the problem and the hazard involved in the disposal of radioactive wastes.

1. Mining, refining, and purifying of radium and uranium ores, i.e., naturally occurring radioisotopes.
2. Pile reactors
   (a) For plutonium production
   (b) For power development
   (c) For production of radioactive isotopes.
3. Atomic weapons.
4. Radium therapy and radium dial industry.
5. Ionitrons (static eliminators).
7. Wastes from chemical and biological research laboratories using radioactive isotopes.24

A completely satisfactory solution to "the growing problem of waste disposal"25 remains to be found. The problem continues to grow as the volume of wastes increases with an expanding atomic industry. The possibility of overexposure to radiation continues to increase accordingly as this source of the hazard awaits a solution.

**Fuel reprocessing.** The reprocessing of "spent-fuels" takes place either at the reactor installation or at

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25 Murray, op. cit., p. 302.
a central reprocessing plant away from the installation. Since the fuels are highly radioactive, the reprocessing operation involves considerable amounts of radiation; and it is necessary to provide safe protection for personnel. The kinds of accidents which could occur are similar to those which occur in conventional chemical plants, such as leaks and spills. There is the fire and explosion hazard. The primary danger is overexposure to radiation of the personnel within the installation. There is always the possibility that radioactive materials could escape from the plant and affect the public.  

Utilization Facilities

The most commonly used radioactive materials today are "radioisotopes," and "the uses known today are only the first modest steps in a scale of development which as yet is quite unpredictable." Radioisotopes, being radioactive materials, have essentially the same characteristics as any other radioactive materials. The increasing importance of these products warrants a brief discussion of their exact meaning and the developments leading to their present status.

26 Murphy, loc. cit.

27 DeSalis, op. cit., p. 10.
Radioisotopes. A radioisotope is a radioactive isotope of an element. The name "elements" is given to the basic substances of the earth which occur naturally and are not combinations of something else. The different types of substances of which each individual element is composed are called "isotopes," which comes from the Greek word iso, meaning "same," and topos, meaning "place." The material which goes to make up any one of the basic elements is not always exactly alike. For example, all hydrogen is not exactly like all other hydrogen and all uranium is not exactly like all other uranium. The differences have to do mainly with weight variations among different types of one element, but in many cases the differences also have to do with radioactivity. Some types of one element send out invisible rays like x-rays, or "atomic sparks," as they are sometimes called, and are known as "radioactive."28

Isotopes which are radioactive are known as "radioisotopes." The term is a contraction of "radioactive isotope." It may be a chemical or a mineral. It is either a solid, a liquid, or a powder. Radioisotope is not a new word, but it has come into general use only in recent years in connection with atomic energy.29


29 Ibid., p. 188.
Isotopes are of two kinds: stable and unstable. There are few known naturally unstable or radioactive isotopes. The only radioisotopes that were sufficiently active to be of much use prior to 1934 were those of the element radium. These were never of much value in biological and industrial processes. Radioisotopes of more common and vital elements were needed and these do not occur in nature. It was necessary to produce them artificially. 30

The first artificial radioisotopes, outside of those produced in laboratory experiments, were made in the 1930's in machines called "cyclotrons." The machines were capable of producing only small quantities, however, and this limited the available supply of radioisotopes. 31

This was the situation which prevailed until the United States succeeded in developing the atomic reactor during World War II. This development made possible the production of radioisotopes in large quantities—"many thousands of times the number that could be produced previously." 32 "For the first time, the advent of atomic


31 Dean, op. cit., pp. 188-189.

32 Ibid., p. 190.
energy has enabled man to produce . . . radioisotopes artificially."

The officials of the Manhattan Engineer District realized that radioisotopes were a valuable by-product of the development of atomic energy. After the wartime secrecy restrictions on the atomic energy program were removed, the Manhattan Engineer District began a program of distributing reactor produced radioisotopes to private institutions for research. This program was taken over by the Atomic Energy Commission and has been expanded until more than one hundred different types of radioisotopes are available.

The sources of the potential hazards from industrial and medical applications of atomic energy are as follows:

1. Radiation from radioactive materials, sources or high-voltage machines and accelerators.
2. Ingestion or inhalation of radioactive materials during preparation or use.
3. Ingestion or inhalation due to inadvertent release of radioactive materials through--
   (a) container rupture.
   (b) waste disposal.

33 Callahan and Hollowell, op. cit., p. 3.
34 The Manhattan Engineer District was the top-secret government project charged with development of the atomic bomb.
35 Dean, loc. cit.
There is no qualitative but merely a quantitative difference between the radiation risk involved in the use of radioactive isotopes and that arising from the release of nuclear energy in reactors since the radioactive substances which might escape from a reactor would be far more dangerous than the faulty application of radioisotopes because of the greater quantity of the substances in a reactor.

William J. Satterfield, Jr., Chief of the Insurance Section of the Atomic Energy Commission, commenting on the dangers of radioisotopes, stated:

Radioisotopes as generally used today give off small amounts of radiation. They vary, of course, depending on the intensity of their radiation and the length of their half-life. Generally speaking they are not sources which would cause a catastrophe. Some damage could result from their use if proper safety precautions were ignored but not damage of the magnitude which some persons think of when radiation is mentioned.37

The potential increase in the magnitude of the danger from this source of the radiation hazard lies in the fact that as the atomic energy program grows, there will be an increasing use of radioisotopes of different varieties with greater numbers of individuals handling them. Also, the Atomic Energy Act of 1954 (68 Stat. 919) permits private industry to own and operate atomic reactors. This means

37 Satterfield, op. cit., pp. 116-117.
that there will be additional sources for the production of radioisotopes.

The Congressional report on the "Peaceful Uses of Atomic Energy" makes the following statement concerning the industrial uses of radioisotopes:

On the average, fewer than 100 persons per State are potentially exposed to significant quantities of radiation from industrial applications of AEC-distributed radioactive materials. The number is small compared to the numbers engaged in other hazardous industries in which safety inspection is practiced by some Government agency; however, it is clear that these industrial uses of atomic energy will expand and with expansion the hazards from careless handling or disposal will increase. . . .

The distribution of radioisotopes is presently under the control of the Atomic Energy Commission which requires the meeting of strict safety standards before a shipment is made to an applicant. Safety experience has been good—"we are not aware of any significant damage or injury that has come about through their widespread use." The future extent of the hazard depends upon the degree to which present rigid safety precautions are maintained, especially as they relate to personnel. The possibility of inexperienced and unqualified personnel being permitted to utilize

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39 Satterfield, op. cit., p. 117.
radioisotopes will always pose a danger as the uses of radioisotopes continues to expand.

Transportation of radioactive materials. The wide variety of radioactive materials, with their varying degrees of intensity and half-lives, present an equally wide variety of packaging and shipping hazards. The unique features of radiation bring about transportation hazards not ordinarily encountered in the normal course of shipping materials and products.

The basic hazard involved in the transportation of radioactive materials is essentially the same as found wherever these materials are present, namely, the possibility of the escape of large amounts of radiation. Many types of accidents are conceivable in the transportation of radioactive materials which could result in such an occurrence—improper packaging could result in a rupture or leakage of the container, accidents enroute resulting from normal operations and Acts of God, military action, or sabotage, and the emission of rays from parcels of radioactive materials which could cause radiation damage to the personnel and equipment of the transportation company.

The hazard can be minimized by proper safety precautions, but with an increasing volume of shipments it remains a potential danger as a radiation source. While present shipping regulations as established by the Atomic
Energy Commission are rigid, there is the possibility that these regulations may be relaxed if manufacturers and suppliers demand such action. Such a possibility has been indicated by a member of the Atomic Energy Commission in regard to the distribution of radioisotopes:

If it is determined that the regulations present real hardships to manufacturers and suppliers of radioisotopes, the situation can be re-examined and possibly the rules altered.  

**Magnitude of the Hazard**

It has been indicated in the preceding sections of this chapter that the effects of radiation are two: injury or death to human beings, and, damage to property. Such radiation damage can result from malfunctioning of reactors, improper operation and handling, and a variety of similar accidents. It was stated that a reactor explosion is not the same thing as the explosion of an atomic bomb. The effects of such occurrences would be localized and there would be little direct hazard to the public.

**Catastrophe Potential**

The most serious aspect of the radiation hazard arises from the fact that if radiation is released from

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atomic reactors in sufficient quantities, it could cause considerable loss of life and widespread damage to property. A study of this problem, sponsored by the Atomic Energy Commission, aptly stated the hazard as follows:

This is the possibility of radiation exposure and contamination, if the fission products stored up in the reactor should be released. It is possible to conceive of accidents which would release the accumulated fission products from a large nuclear reactor in a finely divided state so that a significant portion of them would become airborne and subject to atmospheric dispersal over wide areas. Injury or death could result to people from exposure to the direct radiation from these materials, or from ingestion of portions into the body. Settling out of these materials could cause both further hazard to health and costly contamination-damage to property. Death at distances of many miles and injury and property damage for hundreds of miles could conceivably occur.41

The basic question in connection with the hazard is if such a catastrophe is "possible," is it "probable," and what would be the magnitude of the damages. Consideration of this question is set forth below as it relates to nuclear power reactors.42 The question has its greatest


42 There are two other categories of reactors now in existence. First: the production reactor which the government uses to produce fissionable material for military or peaceful purposes. Second: the research reactor, which is found in universities and some large industries.
relevance with regard to power reactors since a reactor explosion can spread the fission products more easily.

**Probability of occurrence.** It is generally agreed that the probability of occurrence of accidents in nuclear power reactor plants which create a hazard to the public is exceedingly low. This statement would suffice for this section of the study except for the essential importance of the "low probability" factor.\(^{43}\)

It must be stated at the outset that the exact magnitude of this low probability is not known. There are three approaches which might be used in trying to establish some estimation of this quantity:

1. Operate enough reactors for sufficient length of time to obtain an indication of the accident probability.
2. Give careful consideration and approximate numerical values to all separate factors which would either prevent or cause such an accident, then try to calculate, or guess, the composite result of these factors and hence the likelihood of occurrence of accidents.
3. Obtain a weighted average of the best judgments and judicious opinions of the most experienced and knowledgeable experts in the field.\(^{44}\)

Cumulative experience to date shows an excellent safety record, but this record does not provide a dependable statistical basis for estimating the probability of


\(^{44}\) *Ibid.*, pp. 5-6.
occurrence of serious reactor accidents in the future.

Nuclear reactors, especially for power purposes, are still in an experimental and developmental stage and all experience factors are variable.

There are factors both on the side which would lead toward confidence that our "no accident" experience will continue, and on the converse side. On the one hand, we attempt to provide wide margins of safety because of our limited knowledge of accident potentials of reactors. The new and glamorous field challenges and attracts the most expert and competent people. The Government has had and continues to have a substantial safety research program. Experience almost certainly will lead to safer design. On the other hand, since many reactor types are being developed more varied safety problems may exist than would be the case in fewer types. Accident-free experience could lead to complacency. Lengthening reactor life could lead to hazards not otherwise encountered (cumulative radiation damage to components). Competitive pressures could furnish incentives to reduce margins of safety.\(^5\)

It is clear that reactor experience to date is not a satisfactory approach to estimating the probability of occurrence of major reactor accidents. The experience has been limited, variable, and, in the case of nuclear power reactors, practically nonexistent.

It should be possible, in principle, to determine the factors involved in the safety of a reactor, assign a numerical value to each factor, and then derive a net weighted composite measure of the measure of the margin of

\(^{45}\) Ibid., pp. 6-7.
safety, or of the probability of a catastrophic accident in a given time. This would require a listing of the significant positive and negative factors relevant to safety.

On the positive side would be such factors as:

1. In no reactor, so far as is known, will a single equipment failure or a single operating error lead to a fission product-releasing accident (even within the containment structure). If such condition were recognized, it would be rectified. In the vast majority of cases, multiple separate malfunctioning events are a necessary prerequisite to a serious accident.

2. Most reactors are inherently stable, e.g., most reactors possess prompt negative temperature or power coefficients (any increase in these factors is accompanied by a decrease in reactivity, hence, any excursion tends to reach some limiting value, rather than indefinitely increasing power).

3. In heterogeneous (solid fuel) reactors, the fission product inventory accumulates within the solid fuel matrix from which escape is prevented not only by low mobility of these fission products in the solid fuel but also by the metallic surface cladding. In homogeneous (solution or slurry fuel) reactors, the possibility of continuous removal of the fission products offers some compensation for the lack of confinement provided within the fuel elements of other types.

4. Every power reactor will be provided with an adequate primary containment vessel enclosing the reactor core within which fuel and fission products reside. This, in turn, is surrounded by massive radiation shields for biological protection of workers.

5. All power reactors now considered for construction in populated areas are provided with "vapor shells" designed to contain all fission products that might be released in any credible accident.

6. Seventy-five or eighty percent of the fission product elements are solids at ordinary temperatures and, unless opening of the outer vapor shell is caused or accompanied by an event which vaporizes and violently disassembles the core materials, most of the fission products would be expected to remain attached to fragments of fuel elements or to settle out on nearby structures.
7. Should fission products be released from the containment shell, not only the physical state of the materials, but also a complex variety of environmental meteorological and other factors, having various probabilities of occurrence, would govern the subsequent pattern of dispersal. Probabilities of progressively unfavorable combinations of conditions become progressively lower, so that likelihood of highly unfavorable combinations is extremely low.\(^46\)

On the negative side, account would have to be taken of such factors as the following:

1. Many power reactor systems will operate under high pressures. High pressure systems are subject to failure.
2. The cumulative effect of radiation on physical and chemical properties of materials, after long periods of time, is largely unknown. Eventual serious failures may occur.
Various metals used in reactors such as uranium, aluminum, zirconium, sodium, and beryllium, under certain conditions not at present clearly understood, may react explosively with water, also present in many reactors. During incidents of abnormal operation resulting perhaps in melting of some of the metals in contact with water and under the influence of radiation, chemical reactions of enough violence to rupture the containment vessels, with release of the fission products, could occur.

After initial operation, many of the vital components become inaccessible for inspections. In non-nuclear plants, serious accidents are often averted through detection of incipient failure.

5. Much remains to be learned about the characteristics and behavior of nuclear systems.\(^47\)

The listing of such factors could proceed at length. It should be clear, however, that even if all the significant factors relevant to safety were known, it would be

\(^{46}\) Ibid., pp. 8-9.
\(^{47}\) Ibid., pp. 9-10.
essentially impossible to assign dependable quantitative values to their respective probabilities of functioning and to derive a reliable indication of the margin of safety under operating conditions likely to exist.

The final alternative approach to the question of the probability of occurrence of major reactor accidents is that of obtaining a weighted average of the best judgment of the most knowledgeable experts. Such an approach is difficult because there is a general reluctance among leaders in the reactor and associated fields to make quantitative estimates of how low or high the probability is. The general feeling is that the question is too vague and uncertain for assignment of any numerical estimations.⁴⁸

A few of the experts, however, consulted by the Atomic Energy Commission in its comprehensive study of the problem did venture to express an estimation of the probability in numerical terms. It was emphasized, however, that the estimates could not be proven on the basis of fact, and they had no validity of application other than simply to show the degree of the experts' confidence in the low likelihood of occurrence of such reactor accidents.⁴⁹

The estimates of the experts are as follows:

Their estimates for the likelihood of destruction or major damage to the reactor core with

⁴⁸ Ibid., pp. 10-11.
⁴⁹ Ibid.
significant internal release of fission products, but no release outside the reactor vessel, ranged from one change in 100 to one in 10,000 per year for each reactor.

Their estimates for the likelihood of accidents which would release significant amounts of fission products outside the reactor vessel but not outside the containment building (the contained accident) ranged from one chance in 1,000 to one in 10,000 per year for each reactor.

Finally, their estimates for the likelihood of accidents which would release major amounts of fission products outside the containment (the major release accident) ranged from one chance in 100,000 to one in a billion per year for each reactor.50

The Commission study makes an interesting comparison between these estimates and the chance of a person being killed by automobile accidents:

Taking the most pessimistic of these estimates for the major accident, assuming that 100 reactors are in operation in the United States, and making the unrealistic assumption that each accident of the type defined would kill 3,000 people, there would be one chance in 50 million per year that a person would be killed by reactor accidents. For comparison, the chance of a person being killed by automobile accidents, assuming that each person has an equal likelihood of being among the 40,000 killed, is about one in 5,000 per year.51

To sum up, it is generally agreed that the probability of major reactor accidents is exceedingly low and that a major reactor accident is extremely unlikely. The probability is so remote that the chance of its happening is almost zero, but no one will flatly state that it is zero.

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50 Ibid., p. 12.
51 Ibid., p. 13.
Magnitude of damage. It has been concluded that there is some remote but quantitatively uncertain possibility that a major reactor accident might occur. The question then follows: What could be the extent of consequent damages? The remaining section of this chapter devotes attention to this question. Consideration is restricted to estimation of the damages to the public. No attempt has been made to appraise the hazard or damage to the installation itself or its personnel since such damage would be comparatively small.

An evaluation of the hazardous consequences to the public of a major reactor accident requires an analysis of many factors, such as the size and location of the reactor, the amount of fission products stored up in it, the method by which these materials are released, the nature of the exposure, and related conditions at the time of release. It is beyond the scope of the study to analyze the various combinations of these technical factors. Suffice it to say that the estimations set forth below are based upon (1) conditions which are representative of a "generalized" power reactor situation, and (2) assumptions and specifications chosen to be on the pessimistic side, i.e., result in higher damage estimates.\textsuperscript{52} The use of such assumptions is

\textsuperscript{52} Ibid., pp. 15-16.
adequate to permit a reasonable evaluation of the range of
damage from the hazard.

The theoretical estimates of the Commission study
indicated that "personal damage might range from a lower
limit of none injured or killed to an upper limit, in the
worst case, of about 3,400 killed and about 43,000 in-
jured."53

"Theoretical property damages ranged from a lower
limit of about one half million dollars to an upper limit
in the worst case of about seven billion dollars. This
latter figure is largely due to assumed contamination of
land with fission products."54

It must be emphasized that the above estimates are
definitely on the pessimistic side and are believed to be
much greater than the damage which would actually occur
even in the unlikely event of a major reactor accident.
They do, however, give a theoretical range of damage which
serves as a basis for an understanding of the potential
hazard.

Summary

The development and growth of the atomic energy
industry calls for operations involving considerable

53 Ibid., p. 3.
54 Ibid.
amounts of radioactive materials. Overexposure to these materials can cause injury or death to humans and contamination of property. The sources of potential overexposure are wherever radioactive materials are used, namely, in areas where an atomic reactor is located, and in institutions which utilize the products of a reactor, such as radioisotopes. These sources will increase as the use of atomic energy and its by-products become more widespread. This is especially true in regard to future development of atomic power.

The most serious hazard involving the use of radioactive materials is the remote possibility of a catastrophic accident due to explosion, fire, or malfunctioning of a reactor, which could release radiation over wide areas and result in injuries, deaths, and damages of considerable magnitudes. The exact probability of the occurrence of such accidents and the magnitude of their damages are unknown factors. It is believed that the probability of such occurrence is exceedingly low. Nevertheless, they present a hazard which, while not essentially new, man has made of a considerably greater magnitude than ever previously known.
CHAPTER VI

INSURANCE PROBLEMS OF THE RADIATION HAZARD

Introduction

In the United States all activity in connection with the development of nuclear energy was conducted by the federal government or by private industry under government contract until the enactment of the Atomic Energy Act of 1954. Up to that time the atomic energy program was financed entirely from public funds and the government assumed directly all risk of loss. The Atomic Energy Commission in its contracts with private industry had held the contractors harmless and specified the extent to which insurance should be carried. There were few, if any, unusual insurance problems. "Prior to the 1954 act, private insurers had confined their interest largely to workmen's compensation insurance and to hazard survey studies related to the shipment, storage, and handling of radioisotopes and the design, installation, and operation of cyclotrons and particle accelerators."¹ This limited

interest on the part of private insurers was due to the fact that they had only limited knowledge of the hazards related to atomic energy activities, they had no basis upon which to evaluate these hazards, and there was no need to develop and make available private coverage in this field.

The Atomic Energy Act of 1954 reversed the situation. That Act authorized the Atomic Energy Commission to license the construction and operation of nuclear reactors by private industry under regulation of the Atomic Energy Commission. The Act also contained a requirement that "the licensee will hold the United States and the Commission harmless for any damages resulting from the use or possession of special nuclear material by the licensee."\(^2\) This provision meant that private industry was no longer held harmless by the Atomic Energy Commission, but instead private industry was required to hold the government harmless for injury or damage arising out of the use of nuclear materials. "In effect, this provision places the burden of liability for damages resulting from private atomic energy activities on the private entrepreneurs."\(^3\)

As a result of the above provision, and because of the catastrophe potential of the radiation hazard, private industry immediately called attention to the need for

\(^2\) Ibid.

\(^3\) Ibid.
spreading the risk of liability through insurance. The amounts of insurance requested were extremely large, and it soon became evident that the success of the atomic energy program depended in large measure on the availability of adequate insurance.

Private insurers announced their ability to supply coverage to the extent of $65 million. This amount, however, did not appear to be enough to give assurance to prospective operators of nuclear reactors that they would be adequately protected. It became clear that a faster development of peace-time atomic projects would require governmental indemnification of commercial plants beyond the amounts covered by private insurance. 4

Consideration is given in this chapter to the insurance problems of the radiation hazard and the resulting need for federal indemnification. First, the basic sources of the problems are described. Attention is then given to particular problems of underwriting the hazard in the various branches of insurance and the extent to which they have been solved. Finally, consideration is given to the functions of rating the hazard and administering claims.

Sources of the Problems

The insurance problems peculiar to nuclear reactors and related operations are attributable to two basic factors: (1) the introduction of a relatively unknown hazard on a scale never before encountered and (2) the lack of spread of risk.

The nuclear hazard has presented the insurance industry with unusual and complicated problems. The hazard differs from anything which insurers have previously been called upon to insure. Its catastrophe potential is apparently many times as great as anything previously known in industry and, as stated earlier in the study, its probability of occurrence is unknown. Its potential, therefore, must be evaluated in terms of a body of knowledge which is expanding from day to day.

Technology in the nuclear field is still new and experimental and will probably remain so for many years. There can be no standardization until a great deal of experimental work has been done. There are no fixed underwriting rules at present to give a basis upon which to write atomic insurance. There is no stability of design or operation, each reactor being more or less different from each prior one. The atomic industry, unlike other industries, does not yet operate under precise and specific codes. The lack of adequate experience and the rapid changes in technology
have so far made it impossible to formulate such codes. Insurance during such an experimental period is an extremely difficult operation since the essence of insurance implies some standardization of operation and hazards.\(^5\)

The fact that the development of nuclear energy for peaceful purposes has arisen through the channel of weapon conversion has provided a psychological barrier from an insurance standpoint. Most insurance men and most laymen still think of an atomic reactor as a potential bomb. Underwriters also do not know what part psychology may play in claims for personal injuries in contrast to damage which may be evaluated by physical examination under standards yet to be determined.\(^6\) Claims may tend to be exaggerated because of the difficulty of proving the extent of radiation injuries.

The restricted character of information dealing with the development of atomic energy has been a handicap to the development of widespread insurance interest, particularly on the part of small insurance companies. This could be due to a feeling that anything confidential must involve elements of considerable danger. The result of this lack


\(^6\) Ibid.
of information has been that relatively few insurance companies have had an opportunity to obtain any comprehensive knowledge of the problems involved in the reactor field.

There is presently no spread of risk in the atomic energy field and it appears probable that the situation will continue for the next five or ten years. Outside of the weapons field there is only one large-scale power reactor in existence in the United States at the present time. This reactor is located at Shippingport, Pennsylvania and is owned by the government but operated under contract by private enterprise. Construction permits have been issued by the Atomic Energy Commission for two more such reactors and for a variety of smaller research-type reactors, all to be completed by 1962.7 "It is to be expected that a more general introduction of power reactors will be deferred until it can be determined more definitely which of the various types of reactor will prove to be the most efficient and economical."8

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Underwriting the Hazard

Underwriting problems of the nuclear hazard occur in practically every branch of insurance though the nature of the problems vary in respective areas. The discussion below examines the impact of the hazard on the major branches of insurance affected by the problem—insurance applicable to employees, property insurance, and liability insurance.

Insurance Applicable to Employees

The several forms of insurance applicable to employees engaged in operating reactors are workmen's compensation, individual and group accident and health, and individual and group life coverage. The greatest potential problems reside in the field of workmen's compensation. Consideration is given below to the reasons for the problems and proposed remedies for their solution.

Workmen's compensation. One special difficulty concerns the need for full coverage of occupational diseases to include injury or sickness caused by exposure to radioactive materials. The radiation hazard of atomic energy is basically an occupational disease problem. Disability or death due to explosion or burn are clearly covered under all compensation laws. But for persons who escape death or immediate injury from an atomic accident and who are
subsequently afflicted, the problem of obtaining adequate relief under workmen's compensation may be difficult. Barriers may also be encountered by those persons who suffer disability due to continued exposure to ionizing radiation. 9

The need for full coverage of occupational diseases in compensation laws is indicated by the fact that two states, Mississippi and Wyoming, do not provide any coverage for injury or death due to occupational diseases. Of the twenty states which have a schedule-type coverage plan, only nine include sickness due to radiation exposure. Even in some of the schedule-type states "the description used is so restrictive that some workers in those States who hereafter suffer radiation diseases as a result of work exposure to radioactive isotopes or to other forms of atomic energy will not be entitled to compensation benefits." 10

It appears likely that many radiation injuries will be classified as diseases, and this means that amendments to compensation laws will be needed in many states in order to provide coverage. Such amendments are essential if the


10 Ibid., p. 457.
present system of unequal treatment to workers is to be remedied.

Another difficulty arises from the fact that about one-third of the compensation statutes still place a limitation on the cost of medical aid to an injured worker or place a limitation on the period of time in which such aid may be given. Such limitations could result in a worker exposed to radiation injuries not being able to receive the benefit of full protection against the cost of medical care. This is because radiation diseases are usually slow in developing and may extend over long periods of time, resulting in a heavy medical cost. "To anyone who has had experience with the treatment of radiation cases, the meaning of these limits on medical benefits is devastatingly clear. Treatment may require months, sometimes years, and often, many thousands of dollars."\footnote{Ibid., p. 459.} It is clear that workmen's compensation statutes should be designed so as to give full medical benefits to the worker who suffers a radiation injury.

There is the problem of adopting adequate provisions in the laws to assure that medical specialists in radiation diseases will be available to treat workers suffering with such diseases. "Since relatively few doctors are experienced with and qualified to handle radiation diseases, it
is important that the worker who is suffering from such disease has the opportunity to consult a specialist, whenever this is possible."¹²

The method of selecting a physician or surgeon to attend the injured worker varies considerably under the different compensation statutes. In most states the statute provides for the choice to be made directly by the employer or insurance company. A few states provide for the selection to be made by the worker from a panel made up by the employer or insurance company. The worker has some form of free-choice in about one-fourth of the states, but only a few of these states permit unlimited free-choice.¹³

Regardless of the method of selection of doctor being followed, it is extremely important that the workmen's compensation agency be given the necessary authority and medical staff to supervise and control the quality of the medical treatment being given to the injured worker. This should include the authority to request a change in the doctor, hospital, or other medical facility whenever in the judgment of the administrative agency such change is desirable or necessary.¹⁴

One of the most difficult problems in workmen's compensation cases involving occupational disease is that of


¹³ Ibid., p. 380.

¹⁴ Ibid., p. 381.
tracing and proving a causal relationship between disability and employment. This difficulty may be especially true in radiation cases because of the present lack of knowledge of radiation diseases and the amount of exposure required to cause injury. It appears that there will have to be some special provision in the statutes designed to facilitate the presentation of evidence by an injured worker in such cases.

The workmen's compensation law might include, for example, a specific presumption provision stating that for the enforcement of a claim under the workmen's compensation law, it shall be presumed, in the absence of substantial evidence to the contrary, that disability or death which is found attributable to the effects of radiation, either directly or by aggravation of underlying pathology, arise out of and in the course of employment where radio-active substances were used. . . .

The advent of the radiation hazard also means that consideration may have to be given to expanding the coverage of second-injury funds to cover workers who are suffering from radiation diseases. Most of the present-day second-injury funds provide coverage only for the loss of some part of the body. These funds should be broadened to cover any type of permanent disability. "This type of provision would facilitate the employment of workers disabled because of radiation disease and would help to

15 Ibid.
prevent pressure on such workers to waive their right to compensation in the event of a second injury. 16

The adequacy of other provisions in workmen's compensation statutes will have to be reexamined in the light of the problems posed by radiation injuries. Typical of such provisions are those concerning the time limit for filing claims, the techniques for administration of cases, benefit levels, and the apportionment of liability in cases where the disabled worker was exposed in a number of plants to the hazards creating his disability.

Earl F. Cheit, Associate Professor of Economics at St. Louis University, has stated that "unless many States make significant legislative changes, workers suffering radiation-caused disability will join a group of second-class beneficiaries under a system whose first-class citizens are not to be envied." 17 Professor Cheit further states that "radiation cases can be assured equal protection with victims of accidental injury when all States: (1) adopt full coverage of occupational diseases; (2) adopt flexible statutes of limitations on claims filings; (3) remove barriers to equal medical benefits; and

16 Ibid., p. 383.

17 Cheit, op. cit., p. 455.
(4) where they exist, remove other special requirements for occupational disease benefits."18

Proposals similar to those made by Professor Cheit have been recommended to the states by the Atomic Energy Committee of the International Association of Industrial Accident Boards and Commissions. The proposals, made at the 1956 annual meeting of state workmen's compensation officials, were as follows:

1. Provide full benefits coverage of occupational diseases.
2. Set no limits on medical care that workers may require, either for length of time or cost.
3. Initiate studies to determine the advisability of supervised specialized medical care for injured workers.
4. Initiate studies to determine the extension of second injury laws for affected workers to facilitate their employment.
5. Devise methods of apportioning liability in cases where workers have been exposed to radiation in more than one plant.
6. Inspect plants where atomic work is performed to determine the type and quantity of radiation present.
7. Carefully examine workmen's compensation claims from radiation to insure that real injuries are properly covered and that imagined and tenuously related injuries are dealt with in a reasonable balance.19

While solutions for the above difficulties will have to be found, it is generally believed that the employer's liability to his own employees who suffer disability from

18 Ibid., p. 459.

radiation does not create a problem beyond the capacity of private insurers to assume and handle independently of the government.\textsuperscript{20} This conclusion is based on the feeling that there is no chance of a great loss because of the fact that no large numbers of employees will be exposed to injury at any one time.

In this respect the operation of a reactor may present no greater risk than we commonly assume now in many manufacturing classifications. Accidents involving injury or death of, say 25 or 50 employees while shocking enough, have happened and will, it is to be regretted, happen again. We have prepared ourselves to absorb such catastrophes.\textsuperscript{21}

The potential loss involving employees in the event of a catastrophe is greater in the case of a power reactor than in the case of a conventional steam plant because the number of employees will be greater. However, the number of employees is not so great as to create any unusual problem.\textsuperscript{22}

A serious problem might exist for compensation insurers in the event of injury from a reactor accident to employees of a neighboring plant. The probability of an accident causing injury to a substantial number of workmen outside the installation is remote, but it is nevertheless possible. If the employer of such employees should be held


\textsuperscript{21} Ibid.

\textsuperscript{22} Haugh, \textit{op. cit.}, p. 22.
liable to pay compensation law benefits, it is possible that the cost would ultimately be transferred to the reactor operator through the doctrine of subrogation or through direct action by the employees, thereby calling into play the liability insurance of the reactor operator.23

If the workmen are injured "in the course of their employment," they will presumably be entitled to compensation benefits. In almost all states, the insurers would have a subrogated right of action against any person legally liable for the damage. However, in some cases, although compensation benefits may be payable, it might not be possible to establish legal liability. And in any event the insurers might need some aid pending recovery. Insurers have indicated that the problem might become a serious one, but have not to date given any indication that government assistance will be needed to solve the problem.24

In most states the compensation policy must "cover the entire liability of the employer to his employees." It is our understanding that at least in one instance under the contract program, the compensation insurer has received a government indemnity covering liability on the policy above a fixed amount. At present, insurers seem to feel that workmen's compensation problems are solvable within the framework of private insurance. It may be that as the use of atomic energy becomes more widespread, problems needing special solutions will arise.25

From a practical standpoint, workmen's compensation may prove to be the most important indemnity device workers have for personal injuries resulting from radiation.

23 Crawford, op. cit., p. 28.
24 Murphy, op. cit., p. 21n.
25 Ibid.
Experience to date indicates that employees engaged in atomic activities will suffer the majority of radiation injuries. Workmen's compensation may be their only source of recovery; and, if injury is covered by the compensation statute, workmen's compensation will be their exclusive remedy. Workmen's compensation will also be important to employees in other industries if they suffer radiation injuries in the course of their employment. In most states, the workman can bring a tort action against the person causing the injury, and there is the possibility that employees can sue under employers' liability. In Illinois, Washington, and Alabama, if the operator of the installation which was the source of the radiation is subject to the state compensation statute, the injured employee will have no third party right of action.26

In summary, the workmen's compensation hazard for employees engaged in the operation of reactors can be handled by existing insurance facilities though there are numerous difficulties created by the varied provisions of state laws for which solutions remain to be found. The major catastrophe problem is with respect to employees of other plants and the possible liability hazard arising therefrom. With the extension of the uses of atomic energy, and particularly the installation of atomic

26 Ibid., p. 32.
energy, and particularly the installation of atomic reactors by private industry, the solution of the problem may require special insurance arrangements between the insurer and the insured and, perhaps, the government.

**Accident and sickness insurance.** A problem in the accident and sickness field similar to that in workmen's compensation is the determination of whether an injury caused by radiation is to be considered an accident or a sickness. It is not a major problem but is one on which insurers will have to make a decision if they are going to provide such coverage under their policies. Otherwise, new sources of protection may have to be found, and this could mean governmental insurance.

There is also the slight risk of an accumulation of individual claims under accident and sickness policies covering workers using radioisotopes. "As far as we can judge today, the frequency of Accident and Health claims in connection with the use of solid, liquid, or gaseous isotopes in various industries and in numerous other kinds of activities will probably be considerable."\(^{27}\) This, of course, could be minimized by keeping insurance amounts within reasonable limits.

\(^{27}\) DeSalis, Max D., "Atomic Energy and Insurance," An Address Given to the Insurance Institute of Montreal, on October 4, 1956, p. 12.
The degree of risk involved in the operation of various kinds of reactors is of interest to the accident and health insurer, though this factor does not present any major difficulty except, perhaps, in determining the availability of adequate coverage.

It would . . . be wrong to assume that small reactors used for research present a lesser risk than large industrial reactors. Industrial reactors would have automatic installations requiring little supervision, whereas research reactors are continually being employed for experimental purposes, with a large number of people coming and going within the danger area to observe or supervise such experiments. From an Accident and Health insurer's point of view, the research reactor seems the most dangerous of the two. In both cases an additional premium seems justified and called for for the Accident and Health insurance of people working in the same building as that in which a reactor is housed.28

It appears that there are no major problems in the accident and health insurance field arising from the radiation hazard. To be sure, the added hazard of radiation exposure means that insurers will have to make certain technical changes in their policies and in their underwriting practices to include the new hazard. Insurers have not felt it necessary to create any special insurance facilities to handle coverage in this field nor has it been necessary to call upon the government.

28 Ibid., p. 16.
Life insurance. There are no obstacles to including the radiation hazard in personal life insurance policies. The death risk from industries using atomic energy appears to be slight and, in fact, is probably less than in more conventional lines of endeavor. Similar problems arise with double indemnity as in accident insurance. Disability insurance, particularly occupational disability, would require a study of its own. Group insurance for activities involving the use of radioisotopes will have to be rated individually according to a special examination of the facilities and the degree of exposure of the personnel. Such a procedure is necessary because of the difficulty of obtaining a minimum degree of mass and homogeneity of risk-units among workers in atomic energy industries.

The radiation hazard does not present any problems in the life insurance field which cannot be solved within the framework of private insurance. Governmental assistance is not necessary.

Physical Damage Coverages

The catastrophe potential in the field of property insurance represents a substantial amount but not an amount greater than anything previously sought by industry for physical damage coverage. The most that can be lost is the value of the property. Few, if any, of the reactor installations presently under consideration in the United
States contemplate a cost of over $50 million. This figure includes the reactor, its auxiliary equipment, the structure containing it, the turbo generators and their housing, and the land upon which the installation is located. This, admittedly, is a substantial amount to be at risk, but it is not unique in the field of property insurance.  

The existence of a reactor does, however, introduce the hazard of radioactive contamination with the resulting possible damage to the entire atomic installation. The property damage segment of the insurance industry early recognized that it was faced with two important problems: (1) indemnification to an extent consistent with reasonable requirements for the new hazard and (2) underwriting capacity or market for installations involving concentrations of liability beyond the underwriting capacity of any individual company.

**Property syndicate.** It was decided by property damage underwriters that the best solution for the capacity problem was to marshall the financial resources of many insurance companies and create a pool—an association or

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syndicate. This method of providing a means of handling large values at risk is not new. Both the capital stock insurance companies and the mutual companies presently support separate but similar associations for certain specialized classes of business. The capital stock companies have the Factory Insurance Association, the Oil Insurance Association, the Underwriter's Grain Association, and the Railroad Insurance Association. Certain of the mutual companies are organized and function as the Associated Factory Mutuals.  

In May, 1956, the capital stock companies formed The Nuclear Energy Property Insurance Association (NEPIA) and the mutual companies created The Mutual Atomic Energy Pool. The NEPIA serves as an agency through which its members may offer property coverage against hazards "arising out of or pertaining to (a) nuclear reactor installations designed for experimental, testing or power purposes and (b) operations or facilities related or incident thereto. . . ." The Mutual Atomic Energy Pool is a reinsurance pool under which a company may reinsure not only "direct physical damage but also third-party bodily injury and third-party property damage resulting from the operation of atomic reactors or from the handling, fabrication, processing or

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31 Ibid., p. 101.
32 Ibid., p. 102.
reprocessing of fuel or products incidental to such opera-
tion and . . . other physical damage hazards incidental to 
such operation . . . "33

The stock companies' pool has a maximum capacity of 
$50 million for each installation and the mutual pool a 
maximum capacity of $15 million, a total capacity of $65 
million.34 This amount may be increased as more companies 
join the pools and as additional amounts become available 
from foreign reinsurance markets. It must be remembered, 
however, that neither the domestic or foreign markets are 
ininitely expandable because of legal limitations on the 
amount of insurance that an insurer may have outstanding at 
any given time.

Since the amounts provided by the pools are adequate 
for physical damage coverage of any reactors presently in 
existence, or currently under consideration, it does not 
appear that any governmental assistance should be necessary 
for physical damage coverage. In fact, if reactor operating 
experience proves favorable over the next five to ten years, 
this aggregate capacity may even be too large and such 
elaborate pool arrangements may not be necessary.

33 American Mutual Reinsurance Company, "Mutual 
Atomic Energy Reinsurance Participating Agreement."

34 "Insuring Against Catastrophe," Time, February 4, 
1957, p. 80.
There is, however, one area of the physical damage field for which no coverage is presently available, and one area in which several technical problems remained unsolved. These respective areas are consequential loss insurance and fire insurance.

**Consequential loss.** Under consequential loss coverage the insurance company assumes liability for losses incurred indirectly from fire or other insured peril. Such coverage is in direct contrast to direct loss coverage, which applies to the physical loss or damage to the subject of the insurance. The difficulty of providing coverage for consequential losses in the atomic energy field was early recognized in the report of a preliminary survey by a special group of ten insurance executives of the problems involved in insuring private operation of reactors. The report stated:

> We believe that insurance against loss of use frequently purchased in connection with boiler and machinery or other physical damage insurance presents a difficult insurance problem during the period of early development of industrial atomic power. Such insurance is, in effect, a guarantee of successful operation and it is believed that if any such protection is available it will be somewhat limited in amount.35

The problem is that the loss from interruption of business in some situations could far exceed the loss from physical damage alone. "The possible loss resulting from a failure of a reactor, which might throw it out of production for several months, may reach very large proportions."\textsuperscript{36} The contamination potential from a business interruption standpoint is unknown and, as a result, "consequential loss can certainly not at present be insured by insurance companies."\textsuperscript{37} "NEPIA, for the present, will not write business interruption insurance."\textsuperscript{38}

It is probable that there will be little demand for this form of coverage for some time, and the inability to obtain the coverage may not prove to be a major difficulty. The operators of power reactors now planned probably do not expect to make a profit on their initial operations because of extremely high research and development costs and are apparently willing to bear the risk of any necessarily continuing expenses. A number of the reactors presently under consideration are large-scale experimental reactors which are designed to provide information on relative efficiency, economy, and over-all desirability of each type. The

\textsuperscript{36} DeSalis, op. cit., p. 16.

\textsuperscript{37} Ibid.

long-range outlook, however, indicates that consequential loss insurance will be needed, and the supplying of this need may require a governmental program of insurance.

Fire insurance. The costliness of the construction and of the safety features involved in an atomic installation means that relatively large sums would be at risk in the event of a fire. In addition, the decontamination costs—which correspond to clearance costs in fire insurance—could reach considerable amounts. "But the risk seems insurable if a sufficiently high premium is charged." 39 This raises the question that, even if capacity is available, will the rate have to be set at a level which will discourage private industry from securing the coverage? If this be the case, then it is possible that governmental assistance will be needed.

There is also the question that if an insurance peril such as fire or windstorm or explosion is involved in the release of fission products, it might be contended that under the proximate cause rule, there would be some chance for recovery under a fire policy. "The courts, in the last analysis would have to decide that." 40

39 DeSalis, op. cit., p. 16.

There is the possibility that in the event of a catastrophic loss due to radiation fall-out the claim would be made that the loss was the result of an explosion and covered under the Extended Coverage endorsement. In one instance, this possibility has already become a reality. The United States Court of Appeals in Cincinnati, Ohio, recently upheld a district court jury verdict that the bursting of a capsule containing radioactive salt was an "explosion" under the terms of the Extended Coverage endorsement and business interruption policies. The insurance company was held liable for contamination loss to the stock of the insured firm and for business interruption loss incurred during a five-month shut-down period.\(^4\)

While the above case has been the only one of its nature to date, the decision does present fire insurers with the problem of a degree of uncertainty as to what the future pattern will be in this connection. One industry spokesman has commented on the problem as follows:

In order to remove that uncertainty, consideration has been given within the business to adoption of an exclusion which would deny recovery under present fire and property damage policies for loss due to radioactive contamination. If such an exclusion were adopted, the answer would be changed from "probably not" to "certainly not" as regards collecting under a fire policy in event of radioactive contamination "off-site." If such an

\(^4\) "Insurers Held Liable for Explosion in Big Radiation Loss," The National Underwriter, November 14, 1957, p. 3.
exclusion were adopted it would be obvious that property owners exposed to possible contamination would have to look for recovery to the operator of the reactor or other facilities from which the dangerous material originated. 42

There do not appear to be any serious problems at present in the field of fire insurance which would cause a need for additional capacity. It appears that the only way in which such a need could arise would be if difficulties, such as those presented above, result in the charging of rates beyond the ability of industry to pay for and thereby hindering the development of atomic industry. Private industry may then have to call upon the government for assistance.

**Liability Insurance**

It is in the field of liability insurance that both the insured and the insurer are confronted with the most difficult problems. The amount of physical damage insurance which an insured needs is rather quickly established by the value of the property. The amount required in liability insurance, however, is purely a matter of judgment. In the case of the radiation hazard, it must be determined, first, what is the probability of an atomic accident or "incident" occurring, and secondly, if an accident should occur, would the reactor operator be held

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42 Ibid.
liable and for how much would he be held liable. A considerable degree of uncertainty surrounds these factors because of the fact that the hazard remains a relatively unknown one. It was pointed out, however, that a catastrophic loss was possible, though highly improbable.

As a result of this possible catastrophic loss, there arose a demand from industry for unprecedented amounts of liability insurance. The size of this demand as compared with the demand to which the insurance industry was normally accustomed is well described by one underwriter as follows:

In their dealing with normal business, limits of $1,000,000 had come to be rather common. Limits in sums of $2,000,000 and $3,000,000 were not unfamiliar requests, and underwriters knew that Lloyds of London frequently were called on to supply additional amounts of coverage beyond the maximum available in the domestic primary and excess market. But it was rare indeed for any liability risk to be covered for as much as $5,000,000.\(^\text{43}\)

Now we were facing requests and promises of requests from reactor constructors and potential operators for limits of $25,000,000-$50,000,000--$100,000,000-$200,000,000--Possibly $500,000,000, and it was rumored that in one case $500,000,000 was not enough to satisfy the client's demand.\(^\text{44}\)

The individual insurance company is limited in its capacity to assume liability. There is a mandatory limit imposed by law and there is usually a practical limit

\(^{43}\) Crawford, op. cit., p. 25.

\(^{44}\) Ibid.
imposed by the company management. Capacity may be increased through reinsurance facilities but, nevertheless, the amount is definitely limited. Since the liability insurance amounts requested by industry were considerably in excess of any that could be handled through normal channels, it was necessary to marshal the capacities of many insurance companies, as was necessary in the case of physical damage coverage.

**Liability syndicates.** In order to meet the demand for coverage the capital stock companies organized a liability insurance syndicate known as the Nuclear Energy Liability Insurance Association, commonly referred to as NELIA. The syndicate has a capacity of $50 million per reactor installation and provides third-party liability coverage only for the "construction, installation, operation and maintenance of nuclear reactors used for industrial, commercial, research or experimental purposes."45

The mutual companies organized a similar association, called the Mutual Atomic Energy Underwriters, the syndicate writing both third-party liability and physical

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damage insurance. Available protection under the mutual association is $15,000,000 for each reactor.46

It is beyond the scope of this study to discuss the details of the operations of the syndicates or the contents of their policies since such a discussion would shed little light on the insurance problems in the atomic energy field. Suffice it to say that the syndicates have arranged to coordinate their operations and to establish uniform methods of underwriting, rating, and handling of claims.

It appears, then, that for the present, the question of private insurance capacity is settled at an aggregate amount of $65 million for each reactor. It is doubtful whether additional private capacity will be available in the near future. Since the present amount is deemed inadequate by industry, it seems that federal indemnification of commercial plants beyond the amounts covered by private insurance is, perhaps, the only recourse. The philosophy supporting such a program will be examined in the succeeding chapter.

Marine Insurance

Many of the problems created by the atomic energy hazard in the marine insurance field are essentially the

same as those found in the other branches of insurance. A number of the problems take on a peculiar significance in marine insurance, however, particularly in view of the fact that atomic powered vessels are scheduled to begin operation by 1960. These problems center around the areas of atomic powered vessels, radioactive cargoes, non-atomic marine property, and marine insurance policy forms.

Atomic powered vessels. With reference to physical damage to an atomic powered vessel itself, insurers feel that it will be necessary to cover under hull policies the special perils arising from nuclear installation. "These include both (a) damage of a conventional nature to the hulls, by reason of the rupture of the reactor or related mechanism, or the release of heat, and (b) damage to the hulls by contamination, involving either total loss, replacement of parts, or decontamination."47

It is also probable that the coverage of atomic powered vessels will include special problems in the area of constructive total loss. A major item here would be the large increase in the cost of repairs arising from the necessity of extensive decontamination.

47 "Marine Forum Hears Chubb on Problems in the Nuclear Age," The National Underwriter, October 24, 1957, p. 912. Much of the material for this section is adapted from the analysis made by Percy Chubb II, and reported in this article.
The foregoing problems are concerned with that portion of the hull policy which covers physical damage to the vessel itself. It is the opinion of Percy Chubb II, president of the American Institute of Marine Underwriters, that "while grave problems are involved, I am confident that they can be handled within the framework of the existing marine hull insurance market."\(^{48}\)

A particularly serious problem arises, however, in the field of third-party liability coverage, including not only P. & I. insurance but also third-party liability under the collision clause of the hull policy. Consideration is given below to three special questions involved in applying this type of insurance to atomic powered vessels.

First, there is the possibility that the federal government may require the owners of atomic powered vessels to carry extremely high limits of liability, perhaps as much as 50 million dollars. Such a requirement would cause the marine insurance market to be faced with a capacity problem similar to that presently encountered in other liability lines.

Second, there is the question of pyramiding of liability. It is possible that in the event of an accident involving an atomic powered vessel, the third party claimants would proceed not only against the owners of

\(^{48}\) Ibid.
the vessel, but also against the manufacturer of component parts. "Not only would such claims avoid any possible limitation of liability such as is available to the shipowner, but also insurance companies, who may through their non-marine department have exhausted their entire capacity in insurance of products liability, could be faced with a second pyramided claim through their insurance of the vessel."^49

Percy Chubb II states that "these two problems of high limits and pyramiding may well require a special coordination of the marine and nonmarine interests dealing with atomic perils, looking to some form of pooling and one over-all limit. Preliminary explorations of this possible approach have already been initiated, but serious studies along these lines still lie in the future."^50

Finally, there is the problem of varying national laws as to liability. It is possible that these laws may affect not only questions of admiralty but also of civil law to the extent that products liability is introduced into any litigation.

It is interesting to note that the Office for European Economic Cooperation is currently engaged in the preparation of a draft treaty to be executed by the various European nations, in the hope of

^49 Ibid.

^50 Ibid.
standardizing legal procedures in such situations and in the hope of avoiding multiple litigation in the courts of many countries. All in elementary stage, but indicative of direction in which events may flow.51

Radioactive cargoes. The second broad area of marine insurance problems arising out of the atomic energy hazard is the insurance of cargoes which in themselves are radioactive. Such cargoes would include not only special nuclear material but also radioisotopes. Particular attention in this area will have to be given to the problems of special packing and handling of radioactive materials. It is the opinion of insurers, however, that problems in this area do not present the greatest of difficulties, and that basically they do not differ from the type of problems which underwriters face in dealing with other new and unusual merchandise.52

Non-atomic marine property. It has been stated by one marine underwriter that the insurance of non-atomic marine property, both hull and cargo, which may be exposed to atomic perils, "may well be the most hazardous feature of the whole problem in view of the immense values of non-nuclear property which may be subject to such exposure."53

51 Ibid., pp. 912-913.
52 Ibid., p. 913.
53 Ibid.
Consideration is given below to two aspects of the problem.

First, there is the problem of possible exposure of non-atomic marine property to nearby reactors, which may be located on the land or in a vessel. There is presently a lack of knowledge about the degree of such exposure and of the potential loss which might be incurred in the event of an accident. Percy Chubb II comments upon the problem as follows:

In my own view, there is an urgent need for a hazard study to be made by qualified technicians, to determine for instance how much damage would be done to hulls and cargoes in a crowded harbor in the event of a major release of fission products through an accident to a shore based or waterborne reactor. Such a study would have to indicate not only the likelihood of extensive contamination of hulls through waterborne or airborne fission products, but also the susceptibility to damage of cargoes in the holds of vessels, in closed piers, on open piers, as well as in warehouses.54

Second, there is the possibility of exposure of non-atomic marine property to radioactive cargoes. This could occur through the improper packaging of such cargoes, or through damage to the protective covering through a marine catastrophe or fire. "With the possible exception, however, of the transportation of spent fuel elements or fission products, this hazard, while serious, would not

54 Ibid.
appear to involve the enormous potential liabilities of exposure by proximity to a reactor."55

**Marine policy forms.** The final broad area of problems facing marine insurers lies in the degree of protection against atomic hazards under the various types of marine policies. The problem is particularly important as to non-atomic property which may suffer damage or contamination from external sources and could possibly require settlement in the courts. For example, there is uncertainty as to whether damage to a non-atomic hull, caused by an accident to a nearby reactor, would be considered as covered under the perils of fire or explosion. In the cargo field, it appears that all-risks coverage would cover any form of atomic loss other than that caused by war, while this in turn would be covered by the usual war risk policy. There might be considerable question, however, under With Average and F. P. A. policies or other limited forms.56

**Rating the Risk**

The extent to which the need for nuclear energy insurance by industry can be solved by private insurers

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55 Ibid.
56 Ibid.
depends in large measure upon the ultimate cost of the coverage. Private insurers recognize the importance of insurance costs in the development of the atomic energy program. They also realize that they have a financial responsibility to their policyholders. They have stated, therefore, that their approach to the problem of rates will be to attempt "to develop charges that are reasonable for the extreme catastrophe hazard involved, adequate for our companies to develop catastrophe reserves, and low enough for industry to bear and still make progress in expanding the peacetime nuclear energy program."57

Aside from the usual complexities and technicalities of rate making, the nuclear energy hazard presents several peculiar problems of rating, especially in the public liability field. The major rating problems in this particular field are set forth below.

Lack of a Standard

In general, state insurance laws require that rates be "adequate," "equitable," and "not excessive." These are relative terms; and since the atomic energy hazard is relatively new, there are no existing standards relative

to the radiation hazard that can be applied. Since the insurance industry has never before been called upon to provide limits of liability in the amounts now under consideration, there is nothing in ordinary insurance experience upon which to base a rate; and there are no statistical probabilities from which to work other than "informed judgments." Hubert W. Yount, Vice President of the Liberty Mutual Insurance Company of Boston, Massachusetts, and a member of the original group of insurance executives to study the insurability of atomic risks, states the problem as follows:

Experience in reactor technology to date is of very little help to us. Presumably, private operation will differ from government operation. Underwriters fear that the safe operating procedures which have been developed under government operation may not be observed to the same degree under private operation with less experienced operating personnel. Furthermore, the development of the art was begun by scientists with a thorough respect for the hazards involved. In the present state of development we are moving from a strictly scientific base to an engineering base so that operating attitudes may change.58

A similar reaction is voiced by another insurance industry spokesman when he says:

What is a "reasonable" premium for putting up $50,000,000 of our earned resources, every dollar of which is at risk twenty-four hours of every day. We can all agree that insurance should be

58 Ibid.
made available at a reasonable rate but let us hope we can as easily agree on what is "reasonable." 59

Necessity for Large Reserves

Closely related to the problem of a lack of a standard is the problem of building up a large reserve over a long period of time in order to provide for the catastrophe hazard. As has been indicated, the liability problem in the nuclear energy field differs from ordinary liability insurance in that the amounts involved are of $50 million or more. This capacity has been provided by many insurance companies through the three syndicates. Each company is assuming a relatively unknown hazard and pledging a considerable portion of its assets against the possibility of a catastrophic loss. The rate, therefore, must be high enough to interest enough insurance companies to participate in such a pooling arrangement. The rates will have to contain a provision for the accumulation of a fund over a reasonable period of years of a sufficient size to absorb a catastrophic loss.

It must be remembered that there are relatively few reactors planned for the next several years and that rates will have to be formulated for each individual reactor installation. This means that large reserves cannot be

59 Crawford, op. cit., p. 32.
built up within a few years since if the rate is loaded by an early absorption of the catastrophic loss, it will make it difficult for small organizations to purchase the insurance coverage. This would invite governmental intervention on the grounds that the high rates were discouraging participation in the atomic energy program by many small firms. The present absence of competition in the field would also serve as an additional incentive to make the government more conscious of the insurance industry's actions.

**Inability to Evaluate Hazard**

Individual rating of each reactor installation requires consideration of a great deal of information including such factors as the actual location of the reactor, the type of reactor and its power level, its proximity to population centers, and weather conditions which normally prevail in the area. The insurance industry will have to depend upon the federal government for most of this information and even then all necessary data may not be readily available because of security restrictions. Such a situation requires a close working relationship between the government and the insurance industry. In addition, it will be necessary to depend largely upon the government for an evaluation of the information until the insurance companies have had time to secure and train technical personnel in this field.
Since liability insurance rates are subject to regulation by state supervisory officials, it is necessary for companies to act through the medium of duly licensed rating organizations if they wish to act in concert with respect to rates. This means that the various syndicate companies, if they all wish to use the same rate, will have to become subscribers or members of a rating organization in order to meet the statutory requirements of the individual states.

The problem resulting from the above requirement is that few, if any, state insurance officials have the knowledge necessary to evaluate atomic energy rates and to determine whether a rate is reasonable and adequate. It also means the more or less forcing of companies to join rating organizations if they wish to participate in the syndicates. The insurance companies are keenly aware of the fact that either of these factors could cause governmental intervention if satisfactory solutions are not found.

A collateral aspect of the above situation is that since the federal government controls the atomic energy program perhaps it would be only logical to permit the government to have some voice in the establishment or rates by private insurers. Obviously, the private insurers would hesitate to adopt such a proposal for fear of governmental dominance. Several alternatives are available here. One
would be to permit the government to establish rates for a limited period of time, five years, for example, until the reasonableness and adequacy of rates could be established. Another alternative would be for the government simply to provide private insurers with the information and data needed to determine rates and provide technical assistance in using the data. This would enable private insurers to acquire knowledge and experience in the use of such data as well as build up a staff of technical specialists in the field of atomic rating. The latter course is the one which is presently being followed by the insurance industry.

Claims Administration

There are a number of difficulties and uncertainties arising from the possibility of liability claims for damages due to atomic accidents. These problems may be divided into two broad areas, both somewhat interrelated: (1) legal considerations and (2) determination of amount of loss.

Legal Considerations

The most serious aspect of industry's problem in the claims field involves the question of legal liability in the event of an atomic accident which affects the public. The net of these legal considerations is this:

1. Anyone connected with an atomic installation has a potential liability for the consequences of
a nuclear incident. This includes the operator, the assembler of the reactor or related equipment, the contractor which installs the plant at the site, a subcontractor, a supplier of component parts, controls, or instruments, the fuel fabricator, and perhaps architects-engineers who do only design work. It is, therefore, a problem which affects just about every company in the atomic industry, whether it be large or small.

2. It is possible that a company will be held liable without any proof that it has done something wrong or that it has failed to do something it should have done. At least, in some cases, liability might be based on the idea that since the activity is a hazardous one, you must make good the harm done to others, even though you were not careless or at fault in any way. This is the doctrine of absolute liability and it might apply in the atomic field.

3. Even if legal negligence is to be the basis of liability, it should be kept in mind that atomic energy is a new and experimental field. It would be a rare case where any activity is carried on in such a manner, that, if you had to do it over again, you wouldn't do it a little differently or a little better. It is almost always possible using hindsight to find some error.

4. A company might be held liable for a nuclear incident resulting from acts or omissions of any employee in the course of his employment, no matter how junior or subordinate a position that employee might occupy.

5. The risk of liability might extent for a considerable long period of time. As far as the operator is concerned, it lasts for a life of the reactor. This may also be true for equipment suppliers and others. Liability to third parties does not necessarily end at time of sale. In some States, statutes of limitations may not even begin to run until an incident has occurred.60

60 Statement of Francis K. McCune, Vice President of the General Electric Company, before the Joint Committee on Atomic Energy of the Congress of the United States, 84th Congress, 2d Session, Hearings on the Development, Growth,
It appears that the liability of atomic industry will depend largely upon the law of torts, which, in the United States, is basically state law. This means that any effort to determine the rule which will govern a particular type of activity involves consideration of the laws of various states. The rules of the various states are usually different and in a state of change and development. 61

The practical implications of the above rules requires a consideration of the process by which they are applied to the facts of particular cases. The result in a particular case, especially in jury trials, may have little relation to that which is indicated by the rule of law alone. This means that any consideration of the possible liability of atomic industry must be based to a considerable degree upon speculation.

The underlying legal problem is the question of whether the activities of the atomic industry will be governed by the ordinary rules of liability based upon the "negligence" concept or whether the doctrine of "strict liability" will be applied. One study of the problem


61 Murphy, op. cit., p. 21.
expresses the opinion that "the operator of a reactor will be held strictly liable." The legal counsel for the Atomic Energy Commission expresses an opposite view when he states:

It is, however, far from clear that one could support a general statement that strict liability will be applied in all cases of atomic accidents. Much will depend on technological developments and on prevailing social values, particularly where the operation involved is for the benefit of the public generally and is essential to the good of the state as a community.

There is also the uncertainty as to whether the doctrine of strict liability will be applied to manufacturers and suppliers.

Attempts to extend the doctrine of strict liability to manufacturers of articles of equipment which prove to have a defect that causes injury have not as yet met with much success; but it can be expected that this new principle of liability will be advanced in cases involving injury or damage due to a reactor accident. Whether it will be accepted depends upon the court and the circumstances which will exist.

It is also possible that even if the rules of strict liability are not applied neither the reactor operator or

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62 Murphy, op. cit., p. 22n. Statement based upon an analysis of many different sources.


64 Ibid., p. 73.
the supplies can be sure whether they will be held liable in a particular instance. This is because of the increasing tendency of courts to apply the doctrine of "res ipsa loquitur."

... the safety record of the atomic energy industry to date supports the conclusion that careful operation is possible. It has been pointed out, however, that our remarkable safety record may boomerang in this field in that it suggests to the reasonable mind that an accident must, almost of necessity, occur through someone's negligence.65

In the light of the above, it is quite likely that most courts will allow a plaintiff injured by the escape of radiation to plead res ipsa loquitur, the plaintiff's total inability to prove actual negligence being apparent. Once the plea is admitted the defendant will have the burden of advancing evidence of nonnegligent operation. When such an impossibility arises under the ordinary rules the plaintiff will recover without actually proving negligence and that result is tantamount to strict liability.66

It appears that "whether or not a particular court will follow it in a particular case is less important to the atomic industry than that a procedure exists whereby liability can be imposed on the operator or a supplier without regard to fault. If the public has no other method of securing compensation, therey may be strong pressure on the courts to impose liability."67

65 Ibid., p. 72.
66 Ibid.
67 Murphy, op. cit., p. 24.
By way of conclusion to this analysis of legal consideration in the atomic field, it may be said that the industry may expect at some time, under some circumstances, to be held liable for third-party liability claims. The problems which the courts face in this connection are much more difficult than in an ordinary situation involving presumed negligence and the extent to which they fail to impose liability upon industry will mean that the loss will be left to the public.

The attitude of atomic industry toward such risks is well stated by one spokesman:

Now these are risks which a business enterprise expects to take in normal situations because experience has shown them to be of moderate proportions and because it is feasible to insure against them. But the possibility of an incident of catastrophic proportions adds a new dimension to those otherwise conventional legal rules and makes the problem one of utmost gravity for any responsible management.

It is one thing to say that one will accept as a normal risk of doing business the possibility of being held liable in moderate amounts. But should a company be expected to embark on an enterprise where the technical risks are compounded by the legal uncertainties and where its very existence may in the end have to ride on a verdict which a jury passes after the fact?68

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Determination of Amount of Loss

The second problem area in the administration of claims is that of determining the amount of loss should there be an atomic accident. The net of these problems is this:

1. It would be impossible to inspect a reactor installation after an accident because of the radioactivity. Therefore, the extent of the damages could not easily be determined. It may be that a "total loss" would have to be declared and thus bring into play the full amount of any insurance.

2. There is a lack of available technical personnel, such as adjusters, qualified to estimate damages to an atomic installation. There are as yet no standards for measuring loss.

3. Radiation injuries present a number of difficult and interrelated problems:
   a. The effects of radiation may not be known for long periods of time.
   b. There will be delays in reporting claims.
   c. The cumulative effects of a series of small accidents or radiation doses.
   d. Proving cause of injury; same illness may be due to other causes.
   e. Malingering.
   f. Problem of pre-existing conditions.
   g. Lack of physicians who know much about radiation injuries.

4. Losses may be compounded because of subrogation claims filed by insurance companies who have been compelled to pay losses under their policies and in turn pursue their rights at law to collect from the primary interest responsible for the loss.

The above problems indicate that conventional techniques of loss determination and settlement are not adequate
for the atomic field. The need for a new compensation technique is emphasized by Bigelow Boysen, Director of the Atomic Law Institute, Washington, D.C.:

The uncertainties inherent in the hazardous effects, the long delay in their potential manifestation, and the wide variation of judgment that will exist in identifying the responsible cause for such manifestations—call for a wholly new technique in the compensation and liability area if fairness to all concerned is to be achieved.69

Mr. Boysen further points out a specific illustration indicating a need for an objective yardstick of measuring and settling radiation losses:

Assume that a group of pipefitters working in a reactor area are exposed to a neutron beam as a result of the dislodgment of a neutron velocity selector during pile operations. If they received something less than 25 rems of exposure the likelihood of clinically detectable injury is remote. Yet in the judgment of the biophysicists, these men are now "damaged" goods and less eligible for employment in exposure areas than before. Likewise, the biophysicist will say that their statistical chances for development of cancer have been materially increased. Also, the experts are in general agreement that some shortening of the expected life span has resulted from this overexposure. Nevertheless, none of the pipefitters may ever experience any disability from this single incident and, in the absence of disablement, they are wholly beyond the protection of present compensation statutes. Under all the circumstances, it would be ironical indeed if the negligent licenses were to go entirely free of penalty for this carelessness only because the

damaging consequences of his acts are beyond present standards and capabilities of proof. 70

It is essential that private insurers work out adequate techniques for loss determination and administration in the atomic field so as to assure the effectiveness of coverage as a protection to the public. The inability of private insurers to provide this complete protection will offer an incentive for the federal government to step in and administer claims so as to prevent any loss from an atomic accident falling upon the public.

Summary of the Problems

The radiation hazard has confronted the insurance industry with many unusual and complicated problems. The roots of the problems lie in the fact that the industry is dealing with a relatively unknown hazard of tremendous catastrophe potential for which there is presently no spread of risk.

The hazard has caused underwriting, rating, and claims administration difficulties in practically all the major branches of insurance. The nature and extent of the difficulties vary with respective fields but adequate and complete financial protection to the atomic industry and to the public depends upon their solution. The extent to

70 Ibid.
which solutions are not found for these difficulties gives additional incentive for a governmental program.

Private insurers have developed a capacity of $65 million for coverage of atomic industry through the creation of three syndicates, but the sum does not appear sufficient to meet the demands of industry. Atomic industry is fearful of the possibility of unprecedented liability for a catastrophic accident due to the uncertainty of existing legal rules. This fear has been expressed in their demand for insurance in amounts of $100 million and more. The inability of private insurers to provide this sum has become a deterrent to broad private participation in the development of peaceful uses of atomic energy, especially for power purposes.
CHAPTER VII

PHILOSOPHY REGARDING GOVERNMENTAL PARTICIPATION IN ATOMIC RISK COVERAGE

Introduction

The two preceding chapters have considered the unique nature and characteristics of the atomic hazard, and the resulting technical aspects causing difficulty in the insuring of the risk. It is against this background that attention is focused below on the subject of governmental participation in providing the needed financial protection for coverage of atomic industry against the liability hazard.

The attitudes of the major groups interested in the subject are presented first. These groups consist of private atomic industry; private insurers; the federal government through the Congress; and the Atomic Energy Commission, which is the governmental agency charged with administering the atomic energy program. Next, consideration is given to certain criteria supporting a governmental program of financial protection of some type. Finally, alternative programs available to the government are examined, and conclusions are reached concerning the best type of program and a philosophy in support of that plan.
Attitudes of Interested Groups

Atomic Industry

Private industry engaged in atomic activities has stated that the $65 million insurance capacity available from the commercial insurance market is inadequate to meet its needs for financial protection against possible large losses arising out of an atomic accident of a catastrophic nature. An atomic catastrophe could conceivably place the whole assets of a corporation at risk, and industry spokesmen have said that no prudent management would make such a decision.

Atomic industry has taken the position that the federal government should assume the full responsibility for the settlement of claims resulting from a catastrophic atomic accident beyond the limits available from private insurers. The industry feels that atomic activities will be in an experimental stage for many years, and that insurance costs during such a period must not be so excessive as to discourage development of atomic activities. The industry feels this is especially true because the long-range benefits of the current developmental program will accrue to the public in general. It is inequitable, industry spokesmen say, to require a segment of the economy to bear the burden of costs for developing benefits for the public in general, and atomic industry should not be penalized with
excessive insurance costs by virtue of participating in a
developmental program which is of benefit to the entire
nation.¹

Spokesmen for atomic industry have based their
recommendations for a governmental program on several broad
principles. The program should not be considered an insur­
ance plan, but rather one of indemnification above the
amounts of available commercial insurance. While any
charge for the coverage would have to be somewhat arbi­
trary, industry would not object to a reasonable charge for
assumption of the risk by the government. Governmental
indemnification should be closely integrated with commercial
insurance, and the facilities of private insurers should be
utilized as much as possible in the administration of the
governmental program, especially in the investigation and
settlement of claims. Atomic industry further recognizes
that minimum amounts of liability for claims resulting from
radiation damage should be established for the various
divisions of the industry; these amounts should reflect the
insured's ability to pay, possibly by being related to total
assets, total sales, or some other measurable factor.²

¹ United States Congress, Joint Committee on Atomic
Energy, Governmental Indemnity, Hearings before Joint Com­
mitee, 84th Congress, 2d Session, May 15, 16, 17, 18, 21,
and June 14, 1956 (Washington: Government Printing Office,

² Ibid.
The industry believes that the application of the above principles would be desirable for several reasons. First, full protection is given to the public. Secondly, all normal small claims for damages would be handled through existing insurance channels without governmental interference and thereby provide quicker claims processing. Thirdly, atomic industry would not be penalized with excessive insurance costs by virtue of participating in a developmental program which is of benefit to the entire country. Fourth, small reactor projects could proceed, whereas the need to carry high-risk coverage at excessive cost might make them infeasible. 3

Private Insurers

The attitude of private insurers toward governmental participation in insurance or indemnity for damages in connection with the atomic energy program was aptly stated during Congressional hearings on the subject by Hubert W. Yount, a member of the insurance executives study group working with the Atomic Energy Commission on the problem, and representing the American Mutual Insurance Alliance before the Congressional committee. Mr. Yount said:

Our companies are in principle opposed to Government insurance in competition with private insurance. However, it must be recognized that

3 Ibid., p. 268.
there are areas which private insurance has not yet been able to handle. The present atomic catastrophe problem may be one such area. If we have done the best we can to mobilize all the insurance capacity available and this is not enough, our industry can have no reasonable objection to Government participation above the amounts available through private channels on an indemnity basis if it should be found to be necessary. We have reviewed the problem rather thoroughly with the interested power and manufacturing companies. We have a good deal of sympathy for their position to the effect that during the developmental period they should not be asked to put themselves out of business through the possible assumption of uninsured catastrophic liabilities. Therefore, the conclusion of our group of companies is that we should raise no objections to a governmental indemnity program above the limits of private insurance available if it should be found desirable in the public interest.4

Private insurers were opposed to any governmental program of reinsurance in the atomic energy field. The proposed reinsurance plan to which private insurers objected provided that the member companies of the atomic energy insurance syndicates would write the full amount of any requested atomic energy coverage. The syndicate members would then reinsure with the federal government that portion of the insurance which was above the capacity of the syndicate.5

The opposition of private insurers to governmental reinsurance is based upon three considerations: first, the

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4 Ibid., p. 250.

5 Ibid., pp. 164-166.
traditional rejection of any plan that might put the
government in the insurance business in any form; and
secondly, the fact that reinsurance would place primary
liability for the amount in the policy upon the private
insurer, and most companies could not legally assume a
liability running into several millions of dollars.
Furthermore, a reinsurance plan would mean that private
insurers would have to look to the government for reim-
bursement. Insurance companies are skeptical of such an
arrangement for fear that their reimbursement would not
always be readily available from the government.

Private insurers, therefore, have recognized that
governmental participation in the atomic energy insurance
field is necessary, and that an indemnification approach
would be acceptable to them. In addition, the private com-
panies have offered the government the use of their claims
organizations and facilities for handling losses.

Congress

The basic approach to legislation proposed by Con-
gress in 1957 was that the United States should undertake
both an indemnity program and a limitation of liability
plan. The legislation provided that the Atomic Energy Com-
mmission was to determine the amount of financial protection
which a licensee for reactors must have in order to protect
the public against the consequences of atomic accidents.
Beyond the amount of financial protection that would be required as a condition of the license, the government would indemnify the reactor operators for sums up to $500 million. If a reactor accident should cause damages beyond that point, the way was left open for federal contributions after further Congressional consideration. If the funds available were not sufficient to take care of all of the damage, limitation of liability proceedings would be made applicable in order to provide a ready technique for apportioning the moneys available among those hurt. The Atomic Energy Commission was given authority to use this same power in its contracts for those doing work directly for the Commission.

The expressed philosophy of the governmental indemnity and limitation of liability proposed legislation was that it was in the interest of the general welfare and common defense. It was stated that the primary concern of the federal government is with the protection to the people who might suffer damages from the new atomic energy industry. Furthermore, since many of the reactors which will


7 Ibid.
be built will be producing special nuclear material which is vital for the defense of the country, it is in the interest of the common defense and security to see that the companies engaged in such operations have financial protection available to them for possible public liability claims. Also, since title to special nuclear material would rest with the federal government, it was felt that Congress had special powers and duties with respect to the use of that material. The limitation of liability plan was further justified on the basis that no firm has sufficient assets to survive claims against it of $500 million, over and above the insurance which might be available.  

Atomic Energy Commission

The Atomic Energy Commission, being the agency charged with the administration of the joint government-industry atomic energy program, has taken the position that since the inadequacy of commercial liability insurance constitutes a deterrent to the rapid development of atomic activities, the federal government should participate in the providing of financial protection for industry and the public.

The Commission believes governmental action is justified on several bases: (1) the importance to the

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8 Ibid., p. 15.
national interest of encouraging widespread and rapid development of atomic activities, especially atomic power; (2) the unique hazards involved; (3) the present incomplete development of atomic technology; and (4) the lack of experience in practical application for many atomic activities.9

The Commission feels that direct governmental indemnity or an alternative reinsurance program, both above the limits of available commercial insurance, would satisfy the needs of atomic industry for financial protection. The alternative choices were given because of some question as to whether private insurers would accept a reinsurance approach. As indicated previously in this chapter,10 such an approach is not acceptable to private insurers. The Commission has indicated that it would favor abolishing the governmental program as soon as private insurers could carry the whole load.11

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10 See page 254.

Criteria Supporting Governmental Participation

It has been clearly indicated throughout the preceding discussion of the atomic hazard that the basic problem from the point of view of government and of atomic industry is the unavailability of the needed liability insurance from the commercial insurance market. Such a situation has been and remains the strongest criterion supporting governmental participation in providing the coverage.

In addition, there are certain other criteria supporting a governmental program in this field which, when combined with the factor of unavailability, form a sound basis for governmental action. Consideration is given below to the foundation laid by earlier governmental programs of insurance, and then attention is focused on specific criteria supporting a governmental program of insurance in the atomic energy field.

Foundation Laid by Earlier Programs

Governmental programs of insurance have nearly all been prompted by a complex of interrelated social, economic, and political factors. Each new program has provided a foundation of thought and experience which influenced subsequent programs.

Social values and moral concepts have always been an underlying influence prompting governmental programs. This is clearly evidenced in the development of the Social
Security Act of 1935 which, though prompted directly by economic conditions, nevertheless represented a change in social philosophy from one of rugged individualism to one of collective security through the government.

Workmen's compensation was prompted in part by a change in social philosophy in the United States in the early part of the nineteenth century. The era of workmen's compensation was characterized by a growing social unrest and a demand for social justice. The social philosophy was developing that it was not humane to place the financial burden of industrial accidents upon workers, particularly in view of the fact that the worker was producing goods for society and that society was responsible for placing the worker in a position where he would be subject to accidents.

There was a moral element in the discussions concerning the need for federal indemnification for atomic energy hazards. Full financial protection for the public was urged on the grounds that it would be a questionable policy for the government to leave innocent victims of an atomic accident only partially compensated for their losses. This full protection was a moral responsibility of the government.

Economic considerations have played a major role in prompting governmental programs of insurance. This has been particularly true where national economic stability or the general welfare of the country was involved. Social
security and workmen's compensation were prompted directly by economic conditions. Government insurance of bank deposits and real estate mortgages was dictated by the need to restore economic stability to the country. Automobile insurance legislation has been prompted by a recognition of the fact that automobile accidents cost society millions of dollars a year. Flood insurance and crop insurance programs were enacted partly to relieve the government of large relief expenditures in these fields.

Political expediency often served as a factor prompting the enactment of governmental programs in the field of insurance. The Social Security Act of 1935 was outstanding in this respect. Despite the economic need for social security and despite the existence of a social environment acceptable to the concept, the program was not established until the Administration considered the time ripe for it from a political point of view. A large element of political sagacity was also responsible for the passage of the crop insurance program. State nonoccupational disability programs were finally enacted after a good deal of political maneuvering.

Out of this complex of social, economic, and political factors, there emerges several basic and specific reasons prompting governmental entry into the field of insurance. These reasons are as follows:
1. Government has typically entered the field of insurance when the national interest or the general welfare of the country is involved.

2. Government entrance has usually been conditioned on the nonavailability of the desired insurance from private insurers.

3. Government has entered the field of insurance as the result of the natural evolution of a governmental function, i.e., title insurance.

4. Political expediency has often prompted the final enactment of a governmental program of insurance.

5. Government has often been forced into programs of insurance as the result of social pressures resulting from a changed social philosophy.

It is against the above background that attention is focused on the question as to whether a satisfactory foundation has been laid by earlier programs for governmental participation in insuring the atomic energy hazards. The enactment by the federal government of atomic indemnity legislation would not be the first time that government has been called upon to establish programs of insurance covering possible losses resulting from a catastrophe. As indicated earlier in this study, the government had already enacted into law three major programs covering

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12 See Chapter IV.
disasters which incorporated the insurance concept or a related indemnity method and which involved the payment of a fee or charge. These three programs—the Federal Crop Insurance Corporation, the War Damage Corporation, and the Federal Flood Insurance Act of 1956—all represented fields to which it seemed difficult to apply insurance principles. The problems which these programs encountered and the experience gained from their operations served as benchmarks for problems of a similar nature which arose in connection with the insurance or indemnity program in the field of atomic energy. The extent to which these three programs provided experience applicable to the atomic indemnity program is considered below.

The three programs were prompted by the basic factor that the perils insured against were considered to affect the general welfare of the country, and commercial insurance was not available at all or was available only in limited amounts. Under both the war damage and flood insurance programs, government utilized the capacity of private insurers to the fullest extent and, in each case, private insurers willingly made their facilities available to the government to assist in carrying out the programs.

It was necessary to start each of the three programs with an initial appropriation from Congress, and the government paid the administrative costs of the programs. A fee or charge was made, however, for the insurance
provided under each program. The war damage program was terminated as soon as the need for it ceased, and crop insurance and flood insurance are to liquidate their operations as soon as the commercial insurance market is able to provide adequate coverage.

Each program was prompted in part by a recognition of the fact that the peril involved was one over which the insured had little control. Each of the programs also recognized that the catastrophe hazard involved affected not only the insured himself but the community as well; the community was dependent upon maintenance of the insured's purchasing power.

The experience described above would be applicable to a governmental indemnification program in the atomic energy field. The radiation hazard presents a similar type of catastrophe loss possibility which prompted private insurers from assuming the risks under earlier programs. The rapid development of atomic power is considered by Congress to be in the interest of the general welfare of the nation, and the lack of private insurance capacity is adversely affecting the best interests of the country. Therefore, a governmental indemnification program in the field of atomic energy would be justified on the same basis as earlier programs involving the catastrophe hazard, namely, that the general welfare of the country is adversely affected by the existence of the hazard.
The proposed atomic indemnity program provides for only a limited amount of coverage by the government and states that the capacity of private insurers must be utilized whenever possible. Such provisions are similar to those found in earlier programs, and the experience with such arrangements proved satisfactory to all parties to the insurance.

A main consideration in any atomic energy insurance program is the fact that the hazard involved affects not only the insured but also the public, who may be the innocent victims of an atomic accident and left without full compensation for their losses. A similar consideration is found in the philosophies prompting earlier programs, namely, a recognition of the fact that innocent citizens of the community could be affected by a catastrophe over which they had no control.

In addition to the above considerations, the earlier governmental programs of insurance provided experience along lines of techniques of administration of the programs, such as types of contracts to issue, the development of rate structures by types of property, and arrangements for the use of adjustment facilities of commercial insurers. The administrative problems encountered in the development of the flood insurance program, the crop insurance program, and the war damage program were quite similar to those
currently being encountered in the establishment of an atomic energy insurance plan.

**Early Indemnity Agreements**

The federal government has already partly recognized and assumed responsibility for the public liability problem through the terms of various contract arrangements it has with industrial organizations that have been constructing and operating government production facilities in the atomic energy field. The contracts negotiated in the early operations of the Manhattan Project contained "broad indemnity provisions which held the prime contractor harmless against any loss, expense, claims, or damage arising out of or in connection with the performance of the contract."¹³

When the operations of the Manhattan Project were transferred to the Atomic Energy Commission in 1947, the Commission assumed responsibility under many contracts containing this type of indemnity provision. Since insurance of the type normally available to industrial concerns was not obtainable, the Atomic Energy Commission considered it necessary to indemnify the original operating contractors and to extend similar indemnification to new contractors.

¹³ *Governmental Indemnity (Hearings)*, op. cit., p. 76; see pp. 78-85 for examples of typical indemnity agreements with these provisions.
engaged for the operation of Commission facilities involving atomic hazards. Such indemnity provisions were provided on the grounds that (1) the government considered the work performed under the contracts to be essential in the interest of the common defense and security; (2) the government was the party which had requested the contractors to undertake the work; and (3) the government recognized that the work requested under the contracts involved unusual, unpredictable, and abnormal hazards.\textsuperscript{14}

**Dominant Role of Government**

The atomic energy industry was created by the federal government, existing first as a statutory monopoly, and then as a joint government-industry program. The program was developed by public investment, is essentially public property, and will be utilized primarily for public benefit. The role of the federal government is still dominant in that government controls the ownership of nuclear fuel and the licensing authority for its use. In addition, the federal government has the acknowledged responsibility for safety regulations and standards.

Government heavily subsidizes research and development in the atomic energy field, as well as providing a large portion of the financing needed in the development of proposed atomic power plants. It appears certain that the growth of atomic industry through private enterprise will require further governmental participation in the form of additional subsidies of various kinds. A considerable amount of technical information still remains as classified governmental material, and is available to private industry only through governmental permission.

The above factors indicate that the present status of almost the entire atomic energy field, for all practical purposes, still is a government monopoly, though not in a statutory sense. It is reasonable, at least, to say that the relationship of the federal government to the atomic energy field is such that every activity in the field will in some way involve the government. Such a relationship should mean that the government has a vital role in the field, as well as a certain responsibility for providing financial protection with respect to all atomic activities.

Furthermore, the federal government is the body which is encouraging the development of private atomic industry. Since the general public is the more or less bystander in this development, it seems only reasonable that it should not have to bear the burden of any catastrophic losses in the course of this development. Neither
should the distribution of any loss rest entirely on private parties, whether industry or the public. Government has a special responsibility in atomic energy by virtue of its dominant role in the field.

Reduced Loss Burden

If the federal government intends to continue its encouragement of the development of atomic energy activities, it has four approaches through which it may accomplish this objective: (1) a complete government program without any participation by private industry; (2) a contract program, under which private industry would be hired to carry out government projects; (3) a license program, under which atomic energy work would be performed by private industry on its own, after obtaining a license from the government; or (4) a combination of the above approaches.

If the government decides to develop the program on its own—which is unlikely—then government will have to bear the whole burden of any losses arising from this development. The only alternative would be to invoke the Tort Claims Act, which would not be feasible from the standpoint of public policy.

If atomic energy development work is given out to private industry on a contract basis, the contracts would presumably contain the usual indemnity agreement holding the prime contractors harmless for any losses. While the
Indemnity provisions of recent contracts have been more limited than previously, the substantial burden of any loss would fall upon the government.

On the other hand, if the government develops its atomic energy program through a license program, and utilizes private insurers in providing financial protection, the arrangement would result in a considerable cost saving to the government. This conclusion is based on the premise that typical industrial experience indicates that most losses will be small ones, and this holds true for atomic industry. Small losses in the aggregate can amount to considerable sums. If the government permits private insurers to provide coverage up to the limit of their capacity (presently $65 million per reactor), and then steps in on an excess-coverage basis, the initial burden of any loss would fall upon private insurers. Government would, therefore, have relieved itself of a substantial burden of the potential loss. In addition, there would be no administrative costs for government to bear, since they would not be handling small claims.

National Interest

Through the Atomic Energy Acts of 1954, the federal government undertook as a national public policy the encouragement of private participation in the development and utilization of atomic energy. In effect, the government
was encouraging private capital to enter a business affected with the national interest. It can certainly be maintained that the rapid development of atomic power and other atomic activities are in the interest of the general welfare and common defense of the United States. Such an interest was recognized by government in the very beginning of the atomic program; in fact, the atomic energy field was initially started as a military program. Since the rapid development of atomic activities has been deterred because of a lack of private liability insurance, the government would have a sound basis for providing the needed coverage on the philosophy that the national interest is involved.

Another aspect of the national interest philosophy is that the rapid development of atomic power would assist materially in the conservation and utilization of the natural resources of the country. It is often stated that the reserves of fossil and other fuels in the United States are rapidly being depleted; atomic power would be one answer to this situation.

**International Relations**

The United States has a vital interest in the rapid development of atomic energy activities from the standpoint of international relations. A strong position in the field of atomic energy is generally regarded as one of the symbols of world leadership.
Atomic industry spokesmen before Congressional committees have indicated that American firms constructing and operating atomic facilities in foreign countries are going to require adequate financial protection against liability for atomic accidents on the same scale as required by domestic firms. The same requirements will apply to American suppliers of component parts to foreign buyers. Private insurers, however, have stated that insurance on foreign operations will probably not be made available on an advance blanket basis, and that the amount of coverage for such foreign installations will be less than for similar domestic installations.

While the problem of providing liability insurance for foreign atomic installations is one which will require special study, there is one criterion supporting a government program which can be set forth at present. The field of international relations is essentially a responsibility of the federal government. The government has a vital and an essential interest in maintaining its competitive position with foreign countries in the atomic energy field. The lack of adequate financial protection from private insurers is an impediment which could weaken the government's competitive position in this field and thereby lower its prestige on the international scene. Therefore, the federal government should provide the needed financial protection for atomic activities; the issue at hand is a
governmental function and the stakes are too great for the government not to act.

**Alternative Plans and Applicability of Established Philosophies**

Given the need for some form of financial protection against potential liability losses arising from atomic accidents, and granted that the federal government has a particular responsibility and role in the problem, the remaining basic question is what type of governmental program will best meet the needs of the moment. Any program will have to meet two interrelated purposes: first, give the public adequate protection against damages resulting from the radiation hazard; and second, atomic industry will have to be protected against possible large liability claims which could result from an atomic catastrophe. Consideration is given below to alternative programs available to the government.

**Complete Insurance Program**

The federal government could establish a complete atomic liability insurance program and write the coverage from the ground up. Such a plan would place the government in direct competition with private insurers.

There are several precedents for such a program. Crop insurance was originally established as a complete
governmental insurance program. National service life insurance and war risk cargo insurance in the second world war were written in direct competition with the commercial insurance market. In the workmen's compensation field some states compete with private insurers, while some states maintain an exclusive fund.

A complete government insurance program in the atomic energy field, however, would be contrary to the stated objective of the Atomic Energy Act of 1954, which was to develop atomic energy within the framework of private enterprise. Since private insurers have announced a $65 million capacity in this field, and will probably be able to offer a larger capacity as they accumulate experience, it does not appear reasonable nor necessary that government enter the atomic liability insurance field on a complete scale. There is room for private insurers in the field.

Limitation of Liability

Another method of solving the liability problem of industry would be for the federal government to limit the liability of industry to the maximum of insurance available from the commercial insurance market. There would be two precedents for such a method: one is the limitation on shipowners' liability as granted by the federal government through its admiralty power. The liability of a shipowner
is limited to the value of his interest in the ship and the
freight then pending, except that at least $60 per ton must
be available for loss of life or bodily injury.\textsuperscript{15} The
other precedent is the limitation on the recovery of per-
sons injured by airplanes outside the continental limits of
the United States, which was established through the treaty
power of the federal government. The provisions of this
latter agreement limit the liability of the carrier to a
stated amount for injury to a passenger, or damage to
property carried.\textsuperscript{16}

It is questionable, however, whether a similar
national limitation or liability for atomic activities
would be feasible. Such a limitation would not solve the
problem of providing adequate financial protection to the
public, and this should be one of the main objectives of
any governmental program in this field. Furthermore, a
limitation of this nature might raise questions as to the
constitutionality of a plan which permits the federal
government to set limits of liability for citizens of the
various states—a question of federal-state relationships.
In view of these difficulties, limitation of liability

\textsuperscript{15} 46 U.S.C.A. 183.

\textsuperscript{16} Warsaw Convention on International Air Transpor-
tation, Article 22, 49 Stat. 3019 (effective October 29, 1934).
would not be a satisfactory method for the government to follow in the atomic energy field.

Compensation System

Another alternative program available to the federal government is that of establishing a system of compensation for atomic industry. One of the major problems in the atomic field is that of tort liability, and the development of a governmental program of financial protection within the framework of tort liability. Earlier compensation plans have been adopted primarily to avoid this problem. Workmen's compensation is a prime example; automobile compensation plans have been proposed, but have made little progress in this country. It is beyond the scope of this study to present the arguments for and against the compensation concept; such a subject would require a volume in itself. Attention is given, however, to the feasibility of such a system as a solution to the immediate problem, namely, what type of governmental program is best at the moment in order to solve the atomic liability problem of industry.

In view of the fact that the immediate need in the atomic energy field is for some kind of prompt solution to the liability problem, the compensation system would not be practical. Experience with workmen's compensation and automobile compensation indicates that compensation plans
meet with heavy opposition and that any progress at all comes slow. Any prolonged argument over the merits of a compensation system should not be allowed to delay the enactment of other alternative programs.

Furthermore, there is simply not enough information and experience available to date to adequately determine insurance charges or to set up a scale of benefits. A compensation system, if it is to eliminate indemnity, would presumably have to cover all aspects of atomic activities, including property damage. This would pose a difficult problem because of the variations in property values. There would also be the problem of determining whether an injury or other damage was actually caused by radiation. In addition, a compensation system would require the setting up of an elaborate organization, a situation which should be avoided, at least until it is determined whether there is going to be a permanent need for a government program. There would be additional problems of determining to what extent the compensation system should replace tort liability, how broad the coverage should be, and whether there would actually be enough accidents and injuries to justify the cost of such a system.

It is evident from the above discussion that a compensation system would not be a desirable or practical program for the government to establish at present. The proposal is worthy of additional study, however, and may be
a feasible idea should the other alternative methods prove inadequate.

**Excess Insurance or Reinsurance**

Government has traditionally entered the insurance field when a needed coverage was unavailable in the commercial insurance market. Entry in the field in such circumstances has usually been on a voluntary excess insurance or reinsurance basis. The federal flood insurance program, for example, provides coverage only to the extent that it is not available in the commercial market on reasonable conditions and at reasonable rates.

There are several objections, however, to a governmental excess insurance, or reinsurance plan. Such a plan would to some extent make protection to the public dependent upon the business judgment of the operator of the atomic installation. Regardless of the cost of the insurance, there would always be someone who would not purchase adequate coverage. In addition, such a situation would place the government in the position of having to treat victims of separate accidents differently because the operators had made different business judgments as to the desirability of insurance coverage.

The obvious answer to such a situation would be to make the insurance compulsory. The idea of compulsion has been used in other governmental insurance programs where
public welfare is involved. Old-age insurance, unemployment insurance, automobile liability insurance, bank deposits (through the power of the government to grant charters), and workmen's compensation are examples of governmental plans of insurance involving compulsion. Proof of financial responsibility could easily be compelled by the Atomic Energy Commission through its authority to grant licenses for atomic activities.

It remains questionable, however, whether the government should establish an excess "insurance" program on either a voluntary or compulsory basis. Neither would a program of excess reinsurance be desirable, particularly since private insurers strongly oppose such a plan. There would be numerous difficulties encountered in any kind of "insurance" program, such as the determination of a reasonable but adequate rate, the determination of the proper amount of financial responsibility to require of an applicant, and the need for setting up an elaborate organization to handle the mechanism of insurance.

Furthermore, the main role of the government is to provide financial protection against loss in the event of a catastrophe, and not, as in crop insurance, to insure against reasonably expected and recurring losses. Private insurers will provide protection against loss from other than a catastrophe. Spokesmen for private insurers have stated that atomic losses of a catastrophic nature involve
amounts that are really out of the scope of "insurance," and any moneys paid out by government for such losses should be considered in the nature of "contributions."

**Governmental Indemnity**

A point of terminology should be made clear before a program of governmental indemnity is discussed. A liability insurance contract and an indemnity agreement both have the same purpose, namely, to reimburse another party for any loss suffered due to a specified event. Governmental insurance, however, refers to a plan based upon the principles of private insurance wherein premiums are charged and a fund is built up out of which losses are paid. Governmental indemnity refers to a plan in which no true premiums are charged and no fund is built up. There may be a charge for the protection, but it is an arbitrary one and not based upon actuarial principles as is true of insurance premiums.

A system of governmental indemnification in the atomic energy field rather than an insurance system would be the most logical solution to the insurance problem. There is really no need for establishing all of the technical mechanisms of an insurance fund in this situation. There is at present no way to establish an actuarial basis for the full protection required. The chance that a reactor will run away is too small, and the foreseeable
possible damages of the reactor accident are too great to allow the accumulation of a fund which would be adequate. If an atomic catastrophe should occur, the contributions of the companies protected are likely to be too small by far to protect the public, so federal action is going to be required anyway. If the payments are made large enough to insure that there is an adequate fund available, the operation of reactors will be made uneconomic— even more so than at present. On the other hand, if, as is commonly anticipated, there will never be any call on this fund for payments, the fund will have accumulated to no purpose. Hence, in this instance, it seems wisest not to treat this as an insurance problem, but to treat it as an indemnification problem.

The indemnity program should be based on three considerations. First, financial responsibility must be required of all operators of atomic installations. The amount of such responsibility would be determined by the Atomic Energy Commission after an evaluation of each facility. This admittedly would be a difficult task, but presumably the Atomic Energy Commission is the only organization at present which could handle this requirement. Private insurers do not yet know enough about the technical aspects of the atomic energy field, and sources of information are still limited to them. The financial responsibility requirement could be met either through insurance,
by posting a bond, or through a showing that the applicant had sufficient assets of its own to meet the requirement, such as in the cases of large corporations. Presumably the requirement would be met generally through insurance.

Secondly, governmental indemnity would enter the picture at the point above the level of required financial responsibility. There is some question as to whether a limit should be placed on such an indemnity. Should a limit be placed on the indemnity, it should be high enough to cover a catastrophe of the greatest magnitude. If the catastrophe should cause further damage above that limit, Congressional action would have to be considered. It is reasonable to assume that should such an event happen, Congress would see fit to enter the picture anyway.

Thirdly, the governmental indemnity should be available on a gratuitous basis, or perhaps a reasonable charge might be in order. The idea of a governmental program of financial protection without a charge is not new. The Servicemen's Indemnity Act of 1951 provided free coverage. Such coverage was justified on the basis that it was in connection with war or national defense activities, and that the government had a special interest in and responsibility toward those who suffered by reason of such activities. Such a philosophy appears applicable to atomic energy—it is concerned to a large extent with national
defense, and government has indicated a particular interest in seeing a rapid development of the atomic energy program.

On the other hand, spokesmen for atomic industry have indicated that they would not object to a reasonable charge by the government, provided that it did not place too great a burden on the industry. If such a charge is made, however, it should be clearly recognized that it is an arbitrary one and not to be considered as an insurance premium or be placed in a special fund to pay losses. The moneys collected could be used to defray the costs of administration of the indemnity program, if any, or be used in further research and development to reduce the need for governmental indemnity.

Conclusion

The circumstances requiring legislation in the atomic energy field are unique. The main issue should not be whether there exists a real need on the part of atomic industry for excessive amounts of liability insurance, or whether the industry is merely seeking a subsidy. The atomic industry has already received numerous subsidies in the form of tax concessions, exemption from certain regulatory acts, and governmental funds for research and development.

The essence of the problem may be summarized in a brief statement. The federal government is anxious to
accelerate the development of atomic activities, especially atomic power. It has announced its intention to accomplish this objective through a joint government-industry program. The question as to whether the government's action in this regard was premature is immaterial now. Atomic industry has stated that it cannot go on with its participation in the program unless it secures adequate financial protection against the consequences of a possible atomic accident catastrophe. Private insurers have announced their capacity for providing insurance, which atomic industry says is inadequate. The development of atomic activities has, therefore, been deterred until the atomic liability financial protection problem is solved.

Certain criteria supporting a governmental program to solve the problem were presented in the beginning of this chapter. The criteria may be reduced to the fact that the federal government has a vital interest in and a responsibility for removing this deterrent to the rapid development of atomic activities. Several alternative programs were presented for governmental action in this regard, with the indemnity approach being recommended.

The objective of the federal government is to accelerate the development of atomic activities. The means of accomplishing this objective is through a governmental program of financial protection of some kind. The enactment
of a governmental indemnity program would give a reasonable relationship to the end in view.

**New Philosophies Established**

Now that the federal government has enacted an indemnification program in the atomic energy field, the question may be raised as to whether any new philosophy has appeared—whether the atomic indemnification program has added anything to earlier governmental efforts. Consideration is given below to two possible contributions of this program.

One of the reasons for the entrance of the federal government into atomic insurance was the fact that atomic technology was developed primarily by the federal government, and the federal government remains as the dominant force in the atomic energy field. Government has provided its technology to private industry which is developing it for private gain as well as for community benefit. Government, however, has had to turn right around and provide insurance to private industry in order to encourage industry to further develop and utilize this technology. Such action could set a precedent which would mean that future technological developments on the part of government—perhaps in other fields—would automatically bring requests by private industry for government insurance. It would be relatively easy for Congress to grant such requests.
on the basis of the philosophy established in the atomic energy field—even though there may be little similarity between the hazards. In short, the philosophy may have been established that government should provide insurance for the hazards of its technological developments even though they are turned over to private industry. The provision of insurance by government for a developmental program carried on by private enterprise is, indeed, a new concept.

The entrance of government into the field of insurance because of the necessity of maintaining a competitive position in international relations is another new factor which has appeared as a result of the atomic indemnification program. This could possibly be construed as an aspect of the evolution of a natural governmental function, i.e., maintenance of international relations. It is conceivable, however, that a new philosophy has appeared, namely, that government will see fit to enact an insurance program whenever the risk involved may affect international relations. Such a philosophy could acquire as broad an interpretation as that of the general welfare of the country philosophy under which government has established a number of its insurance programs.
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I, William Randolph Beaton, was born in Jacksonville, Florida, October 3, 1929. I received my secondary school education in the public schools of Jacksonville, Florida, and my undergraduate training at Stetson University, which granted me the Bachelor of Science degree in 1950. From the Florida State University, I received the Master of Science degree in 1952. While in residence there, I served as a graduate assistant in the School of Business during the year 1950-51. In 1952-53, I served as an Instructor in Business at Mars Hill College. In 1953-54, I served as an Instructor in Business at Florida Southern College. In October, 1954, I was made a graduate assistant in the Department of Business Organization at Ohio State University. I held this position for three years while completing the course requirements for the degree Doctor of Philosophy. In September, 1957, I was appointed Assistant Professor of Business Administration at the University of Georgia. I am currently serving in this capacity.