PUBLIC SCHOOL FIRE INSURANCE PRACTICES AND PROCEDURES AS RELATED TO OREGON SCHOOL DISTRICTS

by

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CHAPTER I

INTRODUCTION

The total investment in public school buildings in the United States in 1949-50 was reported to be $17,590,435,000;[1] the value per pupil in average daily attendance was $688. The investment in school buildings has shown a very marked increase since the end of World War II. During the years 1947-48 to 1949-50 it is estimated that the value of public school buildings increased $1,079,170,000 (16.6 per cent).

This increase in school plant investment promises to continue at a rapid rate. The U. S. Office of Education estimated in 1953, following a survey of building needs in the several states, that to relieve the overcrowding then existing in the schools and to replace those buildings deemed unfit for service or school buildings would require the construction of 340,000 classrooms at an estimated cost of $12,000,000,000. Looking ahead to the need for increased facilities to meet the predicted enrollment increases, the U. S. Office of Education[2]

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[1]Blose, David T. and Jaracz, William T. Status of State School Systems. Biennial Survey of Education in the United States, 1948-50. Federal Security Agency, Office of Education. Washington: United States Government Printing Office, 1952. Chapter 3. p. 18.

[2]Brownell, Samuel Miller (Commissioner). Report of the Status Phase of the School Facilities Survey (authorized by Title 1, P. L. 815, 81st. Congress) U. S. Department of Health, Education and Welfare. Office of Education, School Housing Section, Washington, D. C., 1953. p. 86.

estimated that an additional 700,000 classrooms costing an estimated $30,000,000,000 will be needed by 1960 in order to house the expected 45,000,000 public school students in 1960. One estimate is that for each of the next five years $5,000,000,000 annually will need to be expended for new plant construction.[1]

The investment in public school buildings and in their operation comprises, in some districts, the community's most important single economic enterprise. To protect the community against the sudden and unexpected catastrophe which the loss or impairment of these facilities would represent, school districts have adopted programs designed to provide them with funds for replacement or repair of these facilities which fire or other destructive forces strike. These programs involve the socialization of risk through the purchase of insurance, the accumulation of reserve funds with which to meet such losses, or occasionally, in very large enterprises, the acceptance of the risk with the expectation that the enterprise will meet the cost of the losses as they occur.

Among the greatest hazards to school property is fire. The most widespread protection against pecuniary loss from fire is fire insurance. It is estimated that in 1950 the taxpayers of the United States were

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[1]Norton, John K. "Federal Aid for School Construction." NEA Journal, March, 1955.

paying $30,797,000 for insurance coverage on public school property, of which by far the greatest part was for fire protection.[1]

In the state of Oregon, the problem of protecting public school districts against loss by fire is also a considerable one. In 1954, public school buildings were valued at more than $200,000,000 and were insured against fire for $150,000,000 at an annual cost in premiums of $1,200,000. However, the total capital outlay revealed in these figures is only a part of what can be expected in the years just ahead. A recent survey of school building needs made by the State Department of Education showed that the total cost of projected school building needs for the next five-year period (1955-60) is estimated at $100,698,000.[2]

The development by boards of education of adequate programs of protection against pecuniary loss resulting from fire represents an important phase of school management. It has been the source of considerable study as evidenced by existing research. Some of the more important of these research studies are briefly reviewed in the following paragraphs.

Fire Insurance Studies

National Association of Public School Business Officials' Studies

The interest of the National Association of Public School Business

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[1]National Association of Public School Business Officials. Committee on Insurance Research. An Investigation of Insurance Practices. Pittsburgh, Pennsylvania, 1941.

[2]Norton, John K. "Federal Aid for School Construction." NEA Journal, March, 1955.

Officials reflects the concern of its members throughout the United States and Canada in the cost of insurance. The Association has made three comprehensive studies to determine the ratio between premiums paid by school districts and the losses sustained. The first of these covered the period 1921 to 1930[1] and included 345 cities in 33 states and 35 Canadian cities. It was found that 28.7 per cent of every premium dollar paid was returned to the insured to cover fire losses. A second study[2] of approximately the same magnitude, including data for the years 1931 to 1937, revealed that 26.9 per cent of each premium dollar was needed to cover fire losses in the communities studied. The third[3] study, covering the years 1938 to 1945, inclusive, found a cost-loss ratio of 31.9 per cent for that period. The general conclusion resulting from these studies was to the effect that premium rates for city school districts were far higher than warranted by the losses suffered. The Association suggested that if the insurance companies would not lower their rates, public schools should look either to self-insurance or state insurance programs for protection. This conclusion was expressed as follows:

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[1]National Association of Public School Business Officials, Committee on Insurance Research, Insurance Practices in City School Districts, Trenton, New Jersey, 1932.

[2]National Association of Public School Business Officials, 1941 Report. Op. cit.

[3]Association of Public School Business Officials, Insurance Committee, Insurance Committee Report on School Fire Insurance, 1938-45, Kalamazoo, Michigan: The Association, 1948.

> The fire insurance business of city school districts yields stock companies upward of ten million dollars in premiums collected annually. Their charges for this business are exorbitant. They do not intend to do anything about it. School districts should seek more economical sources for protection. There are other ways that are safe, as pointed out herein.[1]

The Melchior Study One of the earlier and better-known fire insurance studies was made by Melchior[2] in 1925. This was an intensive report of insurance practices in school districts in New York State. Melchior carefully described the methods in use at that time for determining values of buildings and contents, and studied the manner in which various school districts complied with the laws governing school fire insurance, fire protection and prevention. This was one of the first studies to supply school administrators with facts concerning the cost-loss ratio of the fire insurance program. Melchior outlined a very effective appraisal system to determine the sound value of school buildings and pointed out the chief causes of school fires in New York State. In the 59 cities studied, the cost-loss ratio for the years 1920-25 was 24.25 per cent.

The Smith Study In 1930 Smith[3] summarized the experiences of some twenty cities which had used a self-insurance plan. He also

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[1]National Association of Public School Business Officials, 1941 Report. Op. cit. pp. 15 & 16.

[2]Melchior, William T. Insuring Public School Property. Teachers' College, Columbia University. Contributions to Education, No. 168. New York: Bureau of Publications, 1925.

[3]Smith, Harvey. Economy in Public School Insurance. Thesis Contributions to Education, No. 428. Teachers' College, Columbia University, 1930. New York, N. Y.

explained the programs of state insurance which were then in use in four states: South Carolina, North Dakota, Wisconsin, and Pennsylvania. Smith outlined the advantages of a well-administered state insurance program, and the savings which might be obtained through such a program.

In conclusion, Smith stated, "Fire insurance rates vary widely throughout the United States. There is no uniformity of procedure and frequently certain conditions are penalized more heavily in one state than another."[1]

To assure an efficient fire insurance program, Smith recommended the following:

1. An accurate appraisal of all school property
2. A thorough examination of the schedule-rating sheets of the school buildings owned by the district and the elimination of all unnecessary charges in rates
3. The arrangement of expiration dates of the insurance policies so that the same amount of insurance expires each year
4. The periodic inspection of all buildings
5. Adequate insurance records

The Holy Study[2] Holy made a comparison of public school plant insurance premiums and reported school fire losses in the state of Ohio

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[1]Smith, Harvey. Op. cit. p. 108

[2]Holy, T. C. Comparisons of School Plant Insurance Premiums and Reported School Fire Losses in Ohio City, and Counties for 1930-31. Ohio State University Bureau of Educational Research, 1933.

during the year 1930-31. He found that school losses were very low in comparison to the premiums paid. As a result of his findings, he wrote several articles suggesting a state insurance program for the state of Ohio.[1]

The Viles Study[2] Viles made a study in 1934 of the effects of fire hazards on insurance costs in 500 grade and high school buildings selected at random in Missouri. He found that about one-third of the published insurance rates are made up of penalties levied because of fire hazards in the buildings. These penalties fall into four classes: structural, occupancy, exposure, and after-charges. His general conclusions were that by careful planning and the removal, at little cost, of certain fire hazards, an appreciable amount could be saved in the school district fire insurance program. Viles is now employed in the United States Office of Education and has continued to be an advocate of preventive fire construction in school buildings.[3]

The Ohio Education Association Study[4] A study by the Educational Council of the Ohio Education Association revealed that in the years 1930-46 the Ohio public schools paid $8,101,000 in premiums

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[1]Holy, T. C. "State Insurance for School Buildings." Nation's Schools. 16:60-62; October, 1935.

[2]Viles, N. E. Improving the Insurance Program in Local School Districts. Jefferson City, Missouri: Midland Printing Company, 1934.

[3]Viles, N. E. School Fire Safety. U. S. Office of Education. Bulletin No. 13. Federal Security Agency. Governmental Printing Office, Washington, D. C., 1951.

[4]Shuman, W. L.; Eyman, R. M.; Bash, E. W. "A Study of School Insurance Costs." Report of the Educational Council, 1947. Columbus: Ohio Education Association. pp. 5-12.

and received in adjustments and payments for losses a total of $1,864,000 or 27 per cent of the premiums, the same as that found in the 257 cities studied by the National Association of Public School Business Officials 1931-37.

The Anderson Study[1] Anderson's study, made in the state of Georgia, in 1941, revealed premium-loss ratios to be quite similar to those found in the earlier national studies. In this report a comparison of cost-loss ratios in rural and city school districts was made. The ratio of losses to premiums paid was higher in village areas (55 per cent) than in the cities (17.8 per cent) or the rural areas (27.2 per cent). The state average cost-loss ratio was 27.4 per cent. Anderson also studied the relation of fire insurance costs to total school costs and found them surprisingly high in a few instances.

The Upton Study[2] A sequel to the studies by the National Association of Public School Business Officials, earlier referred to, was made by Upton in 1947. He investigated the methods employed by 180 city school districts throughout the United States and Canada in dealing with fire insurance companies. He analyzed these methods and

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[1]Anderson, E. R. "School Fire Insurance Premiums and Indemnities in Georgia." The American School Board Journal. 103:58. August, 1941.

[2]Upton, Ronald H. A Study of Fire-Insurance Cost and Practices in City School Districts. Unpublished Ed. D. Dissertation. University of Southern California. Los Angeles: 1947.

evaluated their effectiveness and economy. This study was limited to the fire-loss problems of larger city school districts, because of the extensive public investment in city schools and because adequate records were accessible in these larger districts. For the years 1938-45 he found an average cost-loss ratio of 31.9 per cent, which is somewhat higher than the ratios shown by the National Association of Public School Business Officials for earlier years. His findings also indicated that many school districts were taking advantage of the savings possible through the purchase of fire insurance on a five-year plan and through the use of the coinsurance endorsement.

The Smith Study (Washington State)[1] Smith, of the Bureau of Governmental Research and Services of the State of Washington, at the request of the Washington State School Directors' Association, made an investigation in 1950 seeking alternative means of reducing insurance costs for school districts. Essentially Smith's study analyzed the cost-loss ratios of Washington school districts and explored the experiences of selected states having state insurance programs.

In a sample of 305 school districts, Smith found an average cost-loss ratio of 45.5 per cent for an eighteen-year period 1932-50. The cost-loss ratio for the five-year period 1945-50 was 31.5 per cent.

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[1]Smith, George D. Fire Insurance Coverage for Washington School Districts. Bureau of Governmental Research and Services, University of Washington. Seattle, 1951. Report No. 114.

As a result of this study, a manual of fire insurance coverage for Washington school districts was published in 1951. The position of the Bureau relative to the alternative methods considered is indicated by the following statement by the Director of the Bureau:

> The subject matter under consideration raises many highly controversial questions. The Bureau wishes it clearly understood that it takes no position with respect to these issues, but has merely attempted to gather the factual data.[1]

The Scoville Study[2] Scoville's study was made in 1951 to evaluate the different existing state insurance plans to determine if any such plan would be of value to the schools in the state of Colorado. In studying these plans, Scoville explored the bases of cost, protection, and administration.

He concluded that:

1. A state self-insurance fund to provide fire insurance for public school buildings would provide adequate protection at a lower cost to the public schools of the state than they were paying to commercial companies.

2. The premium rates for fireproof and fire-resistant buildings were much too high.

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[1]Smith, George D. Op. cit. Preface.

[2]Scoville, Wilber E. A State Program for the Fire Insurance of Public School Property in Colorado. Unpublished Master of Arts Thesis. Colorado State College of Education, Greeley, Colorado, 1952.

3. The public schools are a preferred risk.

4. There was no coordination of insurance practices in the public schools of Colorado.

Oregon Fire Insurance Studies

The Thomas Study[1] The first recorded public school fire insurance study in Oregon was made in 1917 by Thomas, who was business manager in the Portland Public Schools for several years. At the time of this survey, the cost-loss ratio in the Portland schools was very low. His findings confirmed his belief that fire losses were small in the public schools. As a result of these findings, he recommended that the Portland Public Schools establish a reserve fund to provide a self-insurance program for their schools. In defense of his contention, Thomas stated:

> A fire risk on schoolhouses is a good risk. Tabulation of the answers to my recent questionnaire reveals payments of premiums in the last 10 years to be $871,491.34 and the insurance money from fire loss to be $738,610.93 or $132,880.41 less than premiums paid . . .
>
> A number of years ago Harriman railway lines carried fire insurance: of a sudden they cancelled it all. It was good business to do so. An analysis of cost revealed an excess of premiums paid over losses sustained. If fire insurance companies could carry these railroads and make money, the railways could carry the risks and save money. The same plan was adopted by the Y.M.C.A. in this country. I have before shown that 33 large school systems have in the last

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[1]Thomas, R. H. "Fire Insurance in Public Schools." American School Board Journal. LVII, No. 3. September, 1918. p. 35.

> ten years paid out for school fire insurance $132,880.41 in excess of losses received. The state of Oregon alone has paid out during the same time $173,715.50 in excess of losses received. Applying the same logic and conclusive returns in the same--if fire insurance companies can carry these schoolhouse risks and make money, the school authorities can carry the risk and save money. . . . . .
>
> These facts and conclusions are not theory or opinion. Portland, Oregon, has been through it all and is now resting upon an insurance fund of $101,386.89 partially invested in bonds and increasing at the rate of $15,000 annually plus interest. It carries yet some insurance on its three larger buildings not fireproof, until the fund will be large enough to cover them also.

The Holy Report[1] On December 7, 1949, the Oregon State Emergency Board approved the request of the Legislative Advisory Committee for a budget of $55,000 from the Basic School Support Fund to be used to complete a study of Oregon public schools. A portion of this study (known popularly as the Holy Report since it was conducted by Holy) dealt with the business management practices of Oregon school districts. It was plain from this study that many of the second and third class districts were not actually cognizant of the extent and nature of the insurance programs they were providing.

The Holy study showed a 41.6 per cent cost-loss ratio on school buildings for a period of five years (1944-49) for the 55 first class districts reporting. However, there was an inadequate number of returns to make any definite statement as to the exact cost-loss ratio in Oregon

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[1]Holy, T. C. A Study of Public Elementary and Secondary Education in Oregon. State Department of Education. Salem, Oregon: 1950. pp. 376-7.

at that time. In the conclusion of his report, Holy recommended that there be set up a committee of educators to study insurance rates and confer with the appropriate insurance officials at periodic intervals for the purpose of keeping school building insurance rates in line with losses sustained.

The Woodell Study[1] In 1953, Woodell made a study of current practices in school insurance programs and developed a suggested insurance program for Oregon school districts.

The study gave emphasis to fire, liability, and motor vehicle insurance with lesser emphasis given to extended coverage insurance, workman's compensation, and boiler insurance. The major findings of this study were:

1. Regulation of insurance is a function of the State of Oregon.

2. There are principles of insurance which apply to all types of insurance, including school insurance.

3. Less than half of the school districts of the first and second class have any centralization of responsibility for the district's insurance program.

4. Very few of the school districts have a well-planned insurance program which provides for both adequate coverage and economy.

5. The reported cost of premiums for fire insurance in school districts studied was very high in comparison to public school losses.

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[1]Woodell, Marshall. An Insurance Program for Oregon Schools. Unpublished Ed. D. Dissertation. Oregon State College, 1954.

Included in Woodell's recommendations were the following:

1. That the State Department of Education explore the possibility of providing an insurance consultant to audit and assist school districts in their insurance programs.

2. That legislation should be enacted to require directors of a school district to insure school buildings, contents, and equipment against fire and other common perils.

3. That the State Department of Education should take the initiative in publishing an insurance handbook for the use of insurance advisors, school administrators, and school board members.

The Lane County Survey[1] The Lane County Survey was carried on by the writer as a pilot study to determine the desirability and the feasibility of a state-wide study of public school district fire insurance policies and practices. For a number of years the writer had observed in the school districts with which he was acquainted inadequate provisions for the development of sound fire insurance policies. Discussions with other school administrators and a study of available literature indicated that the writers' impressions were shared by others. The Lane County Survey was therefore undertaken by the writer to further test his assumptions as to the need for such a study and to develop techniques for the same.

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[1]Survey of Lane County Schools. See Appendix A.

Lane County was selected for the pilot study for the following reasons:

1. The writer lives in this county and is well acquainted with most of the school administrators.

2. Lane County is the second largest county in Oregon in school population and value of school property.

3. There is a wide variation among Lane County school districts in: (a) size, (b) type, and (c) wealth.[1]

Specifically the pilot survey sought to secure the following information:

1. The value of school buildings and equipment in Lane County.

2. The amount of insurance carried on this public school property.

3. The types of insurance problems which exist in Lane County school districts.

4. The cost-loss ratios in Lane County schools.

The Lane County Rural School Board sent a questionnaire to each school clerk requesting insurance data from each of the 56 school districts. After this material had been tabulated, it was quite evident that no uniform insurance policy was in effect and in most school districts the school board members knew very little about their own insurance program.

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[1] Oregon School Directory issued by Rex Putnam, State Superintendent of Public Instruction, Salem, Oregon, 1952.

The data secured in the Lane County study revealed that 35 per cent of the school buildings were insured for less than 60 per cent of their insurable value. Of those under-insured, three districts were insured for such small amounts that they would have been unable to bond within state-established bonding limits for an adequate amount to replace their buildings in case of a major fire. Of these three under-insured districts, all were carrying 90 per cent coinsurance policies on all buildings. The coinsurance policy is an agreement which obligates the school district to carry the stipulated per cent of the total insurable value. If this per cent is not maintained, the school becomes a coinsurer even on small losses.

These data also revealed that four school districts were insuring their school buildings and equipment for far more than they were reporting as the total value of all school property.[1] Under the regulations of the Oregon Insurance Law, it is unlawful to intentionally over-insure, and the insured cannot collect more than the value of the buildings and equipment in case of loss.

The foregoing findings relative to Lane County led the writer to believe that a study of fire insurance practices and policies for the entire state of Oregon would be productive of considerable good for the public schools of the state.

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[1] School District Annual Reports to State Department of Education. Salem, Oregon.

Statement of the Problem

The problem undertaken in this study is to identify and evaluate fire insurance practices in the school districts of the state of Oregon, as a basis for making recommendations for their improvement. The purpose of this study, more specifically, is to seek answers to the following questions:

1. What are the present practices of Oregon school boards in the administering of fire insurance programs?
   - A. How do school boards determine the amount of insurance needed?
   - B. How are insurance companies selected by school boards?
2. What is the value of public school property in Oregon compared to insurance coverage?
3. What is the cost-loss ratio in Oregon schools over a period of 5 years?
4. What type of policy is most economical?
5. What are the most common fire hazards in school buildings?
6. How are insurance rates determined?
7. What economies are available by removal of fire hazards?
8. In relation to existing practices, how would self-insurance affect Oregon?

Experience with the Lane County pilot study and interviews with people directly responsible for the fire insurance programs in ten selected Oregon school districts indicated that reliable data could be obtained only by securing and cross-checking data from several sources. Data for the study were consequently secured as follows:

1. The Insurance Data Form[1] The insurance data form with an introductory letter and a note from Paul Elliott, President of the Oregon Superintendents' Association, was mailed to all superintendents of first and second class districts and to the school clerks of all third class districts in the state of Oregon. Ninety-one per cent, 84 per cent, and 56 per cent respectively of the first, second, and third class districts completed and returned the data forms.

2. School Auditors' Reports All information secured by questionnaire was checked and supplemented by a review of all audited school district annual reports for the year 1953, which are filed in the Bureau of Audits[2] at Salem, Oregon. In order to further supplement these data, some of the larger school districts were visited.

3. State Fire Marshall's Reports The annual reports of the State Fire Marshall were checked for public school fire losses for the years 1948-53.

4. Oregon Insurance Rating Bureau Statistics Visits were made to the Director of the Oregon Insurance Rating Bureau for the purpose of (1) obtaining information in regard to the procedures of rate making and (2) securing information in regard to the stock companies' loss experiences in Oregon from 1948-52, inclusive.

All of this information was checked with the State Department of Education for any pertinent facts that might be related to the successful completion of the study.

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[1]Appendix B.

[2]Bureau of Audits, Public Service Building, Salem, Oregon.

Limitations of Study

Although an effort has been made to insure the accuracy of all data reported in this study, it must be recognized that in some instances, school property values, the extent of insurance coverage, and fire insurance premium costs were not accurately reported by school districts. For example, in some school districts it was found that the school clerks had listed the cost of all insurance, including bus, industrial, and liability insurance, as being the cost of fire insurance.

As noted earlier, many of these reporting errors were uncovered when the writer checked these reported figures against the audited figures. In those instances in which the school audits did not list the cost of insurance policies, the writer sought to verify the reported figures by checking again with the school involved. It is, therefore, the writer's judgment that the data in this study are sufficiently accurate and complete to support the conclusions.

CHAPTER II

INDEMNIFYING AGAINST LOSS OF SCHOOL PROPERTY BY FIRE

No one knows just when the early forms of insurance had their beginnings. Almost since the dawn of written history, there are evidences of mankind banding together to help make up the unexpected losses of the unfortunate. The element of uncertainty has puzzled man down through the ages. The unexpected has been explained as the "hand of fate," such explanation being the result of inability to explain or to cope with the situation. As civilization has advanced, however, mankind has found ways of predicting, within limits, the probable frequency of occurrence of some of these formerly catastrophic events and of making preparations in anticipation of them. He has developed great actuarial skill by which he computes, for large populations, probable loss of life, or damage or destruction of property, and now only the improvident individual fails to count as a part of operating expenses the funds needed to make provision for what to him may be a very sudden and unexpected loss, but which for a large population can be predicted within tolerable limits.

Local school districts are faced with the responsibility for thus protecting the property of the school district. They have sought to do so

through: (1) insurance with a stock or mutual company, (2) self-insurance by establishing a reserve fund, and (3) laying plans to meet unexpected losses as they occur, from the resources of the district, (true usually only in very large units). It is the purpose of this chapter to consider the foregoing patterns of operation and to discuss the nature of the protection provided by each of these programs. The first of these will be treated in some detail in this chapter. The latter two will be treated only briefly here and more fully in Chapter V.

Insurance

The insurance law of Oregon defines insurance as a "contract whereby one undertakes to indemnify another against loss, damage, or liability arising from an unknown or contingent event whereby the insured or his beneficiary suffers loss or injury."[1]

The nature of insurance is further defined in the following statement:

> Insurance is the exact opposite of gambling. In gambling two persons deliberately set about to create some hazard for pleasure or profit; they introduce the element of risk where it previously did not exist. Insurance, however, is designed as a hedge against risks which are already present, the object being to neutralize the existing risk. Insurance involves the transfer of an existing risk from one person to another.[2]

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[1] Insurance Laws of the State of Oregon. Title 56. Sec. 736.005. Salem, Oregon. p. 639.

[2] Smith, Harvey. Economy in Public School Insurance. Thesis Contributions to Education, No. 428. Teachers College, Columbia University, 1930. New York, N. Y. p. 7.

Social Aspects of Insurance Insurance, from a practical standpoint is a social device whereby risk may be transferred to a carrier and is thus eliminated as far as the policy holder is concerned. Its purpose is to reimburse, at a moderate cost to the insured, one who has suffered loss. It actually shifts the burden of risk[1] from the individual or individuals who cannot afford to suffer a loss, to a group which has been financially organized to assume such loss. For example, the property owners of the school district might find it impossible to raise sufficient funds to replace a building lost by fire, yet they are able to make modest annual premium payments to insure against such a contingency. In so doing they turn their risk over to the insurance carrier to assume, and thus free the district from additional losses should a fire occur. When they buy insurance, they assume a small loss (the premium) and transfer the large, uncertain risk to the insurance carrier.[2]

What is referred to in the preceding paragraph as "the large, uncertain risk" is such only to the individual person or company purchasing the insurance. To the insurance company, working with a very large population, these are not uncertain risks, for it is the business of the insurance company to compute the probability of loss for a very large group, based upon the law of averages, so that the misfortune of

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[1]"Risk" is used with several meanings in this chapter. It refers to the chance for loss, or the type of hazard which may cause a loss, such as a windstorm, fire, earthquake, etc., or it sometimes refers to the property or person insured.

[2]Martin, Howard L. General Insurance in Oregon. General Education Publications. San Francisco: 1952. p. 10.

one or even of many may be compensated for by the premiums paid in by those fortunate enough to avoid loss.

The essential features of the law of averages with which property insurance is concerned are described by Thomas as being:

1. The existence of a known danger to which all property owners are exposed.

2. The probability of loss not falling on all exposed to it.

3. The assumption that when loss occurs, it will fall so heavily on those to whom it comes that indemnity will become a matter of great importance to them.

4. A fairly accurate knowledge of property annually destroyed so that the insurer may calculate his risk with reasonable certainty.[1]

Essential to the operation of the law of averages is a very large population in terms of which loss expectations may be calculated. Two other factors are also sometimes referred to as being essential to provident operation by insurance companies in terms of the law of averages:

1. The size of the individual risks must not vary too greatly. Obviously, one extra large risk would upset all calculations if all the other risks were very small. Insurance companies have met this danger by limiting the amount of insurance that they will write on any one building. This maximum varies according to the type of building and the amount of fire hazard involved.

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[1]Thomas, R. H. "Fire Insurance in Public Schools." American School Board Journal. LVII, No. 3. September, 1918. p. 35.

2. There must be a random selection of risks scattered over a large territory. This avoids the possibility of an insurance company having all of its insurance in a circumscribed area which might suffer a catastrophe and thus make greater call upon the insurance company for indemnity than the resources of the company could stand.

The assumption made in the foregoing paragraphs is that insurance companies are able adequately to estimate the risks to various categories of their clients, such that they may charge a premium certain to meet not only claims for indemnity against the insurance company, but large enough also in the aggregate to meet the operating costs of the insurance company.

As Martin puts it:

> The degree of risk determines the terms of the policy. It /the insurance company/can only insure risks between "0" and "50" on the scale because when the probability of loss rises over fifty per cent, it becomes impossible to collect enough premiums to cover losses. Those risks which approach an "0" probability of loss are good risks and are sought after by insurance companies. Buildings adequately protected by fire departments, alarms, and sprinkler systems come within this classification. Those risks approaching "50" are poor risks and require very high insurance rates.[1]

It has also been pointed out by Riegel and Miller,[2] that for an insurance contract to operate equitably, produce the desired benefits, and be practical from a business point of view, certain conditions are necessary.

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[1]Martin, Howard L. Op. cit. p. 11.

[2]Riegel, Robert and Miller, Jerome. Insurance Principles and Practices. New York: Prentice-Hall, 1947. pp. 19-20.

1. The insured must be subject to a real risk.
2. The risk to be insured against must be important enough to warrant the existence of an insurance contract.
3. The cost of insurance must not be prohibitive.
4. There must be a large number of risks.
5. The extent of the hazard involved must be capable of an approximate mathematical calculation.

Insurance does not of itself eliminate risk, even though the companies engaged in the business of fire insurance do much to reduce fire hazards by campaigns of education in fire prevention, systematic advertising, the inspection and rating of buildings, penalizing violations of safety practices through increased rates, and by pointing out types of construction and maintenance practices that are not safe.[1]

The Insurance Policy The insurance policy is a contract between two parties, the insurance company and one having an insurable interest.[2] The same underlying principles that govern the relationships between the contracting parties under other forms of contracts apply to insurance contracts as well.[3]

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[1]Smith, Harvey. Op. cit. p. 5.

[2]A person has an insurable interest in property when he derives a pecuniary benefit from its existence or would suffer loss from its destruction. Those who stand in a representative capacity such as warehousemen, commission merchants, common carriers, agents, and factors have an insurable interest in the property in their care and may insure their interest in the property entrusted to them. Not only their right to commission or compensation for services, but the possibility of being held liable for the value of the goods, brings them within the scope of an definition of insurable interest.

[3]Riegel, Robert and Loman, H. J. Insurance Principles and Practices. New York: Prentice-Hall, 1921. p. 306.

These principles as defined by Riegel and Miller,[1] Vance,[2] and Martin[3] may be outlined as follows:

1. There must be an agreement based upon an offer and acceptance of that offer in the same terms.
2. There must be a mutual knowledge of all material facts and the contract must be free from fraud or misunderstanding.
3. The agreement must be between competent parties, legally capable of contracting.
4. The contract must be in the form required by law.
5. The insurance policy must have a lawful purpose.
6. To collect on his insurance contract, the insured must have suffered a loss.

It is a principle of law that an insurance policy is one of indemnity and not one of gain. Public policy has prevented the insured from profiting from his loss.

In order to promote fair play and good faith between the insured and the insurer, insurance laws have incorporated into the standard fire insurance policy methods of cancellation when certain knowledge with reference to the risk involved is withheld by the insured. Intentional concealment and misrepresentation may void the insurance contract.

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[1]Riegel, Robert and Miller, Jerome. Op. cit. p. 335.

[2]Vance, William R. Handbook on the Law of Insurance. St. Paul: West Publishing Company, 1930.

[3]Martin, Howard L. Op. cit. p. 32.

The Oregon Insurance Law Oregon state law has established a department of insurance headed by an insurance commissioner appointed by the governor, whose chief duty it is to regulate and enforce the laws.

The general powers and duties of the commissioner are:

1. To have and exercise the power to enforce all the laws relating to insurance.
2. To issue certificates and licenses to insurance companies which qualify under the insurance law.
3. To receive and file an annual financial statement from each insurance company operating within the state.
4. To require all insurance companies to publish their financial statements in a newspaper of general circulation.
5. To furnish "conventional form blanks" to the insurance companies for their annual reports.
6. To purchase forms.
7. To compile and have printed for general distribution, books, blanks, insurance laws, and other matters necessary for public information.
8. To preserve in a permanent form a record of his proceedings, including a statement of the result of all investigations and examinations of insurance companies.[1]

The Oregon Standard Fire Insurance Policy

The fire insurance contract for Oregon (page 30) was standardized by law in 1915 when the state adopted the Oregon Standard Fire Insurance Policy. This policy was revised in 1943 to conform with the New York Standard Fire Insurance Policy which was widely recognized as containing

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[1] Insurance Laws of Oregon, 1951. pp. 9-10.

the elements of an acceptable policy. This latter policy, with certain minor changes, is now required by law in 46 states, two territories, and the District of Columbia.[1]

It is of interest to note that whereas Oregon law includes provisions governing all types of insurance--life, automobile, health, and accident, etc.--the fire insurance policy is the only one written into law in its entirety. A copy of The Standard Form Fire Insurance Policy with the extended coverage endorsement is included on pages 30 and 31 of this study.

It might be observed that the face of the insurance policy includes the amount of insurance, the rate, the premium, the period of insurance, the type of coverage, the expiration date, the name of the insurance company, and the name of the insured. It is important that the exact ownership and location of the property be stated in the policy because of the unique nature of the fire insurance contract.

The Insuring Clause The Oregon Policy insures against "all direct loss by fire, lightning, and by removal from premises endangered by the perils insured against."[2]

Through usage and court decision, the phrase "all direct loss by fire" has come to mean loss or damage by hostile fire.[3]

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[1]Linn, Henry H. and Joyner, Schuyler C. Insurance Practices in School Administration. New York: The Ronald Press Company, 1952. p. 25.

[2]Martin, Howard L. Op. cit. p. 30

[3]Hostile fire may be defined as a fire starting from an accidental or unknown origin with damaging results.

STANDARD FIRE INSURANCE POLICY No.

A CAPITAL
STOCK COMPANY

INSURANCE COMPANY

Peril(s) Insured Against and Coverage(s) Provided (Insert Name of Each)	AMOUNT	RATE	PREMIUM
FIRE & LIGHTNING	$	$	$
† EXTENDED COVERAGE ENDORSEMENT		$	$
†		$	$
†		$	$
		TOTAL	$

NO INSURANCE ATTACHES UNDER ANY ITEM MARKED † UNLESS RATE AND PREMIUM IS SPECIFIED AND ENDORSEMENT IS ATTACHED TO THIS POLICY.

In Consideration of the Provisions and Stipulations Herein or Added Hereto and of the Above Specified Dollars Premium this Company,

for the term of.....from the.....day of....., 19.....,
to the.....day of....., 19.....,
} at noon,

Standard Time, at location of property involved, to an amount not exceeding the above specified dollars,

does insure.....

.....

and legal representatives, to the extent of the actual cash value of the property at the time of loss, but not exceeding the amount which it would cost to repair or replace the property with material of like kind and quality within a reasonable time after such loss, without allowance for any increased cost of repair or reconstruction by reason of any ordinance or law regulating construction or repair, and without compensation for loss resulting from interruption of business or manufacture, nor in any event for more than the interest of the insured, against all DIRECT LOSS BY FIRE, LIGHTNING AND BY REMOVAL FROM PREMISES ENDANGERED BY THE PERILS INSURED AGAINST IN THIS POLICY, EXCEPT AS HEREINAFTER PROVIDED, to the property described hereinafter while located or contained as described in this policy, or pro rata for five days at each proper place to which any of the property shall necessarily be removed for preservation from the perils insured against in this policy, but not elsewhere.

Assignment of this policy shall not be valid except with the written consent of this Company.

This policy is made and accepted subject to the foregoing provisions and stipulations and those hereinafter stated, which are hereby made a part of this policy, together with such other provisions, stipulations and agreements as may be added hereto, as provided in this policy.

IN WITNESS WHEREOF, this Company has executed and attested these presents; but this policy shall not be valid unless countersigned by the duly authorized Agent of this Company.

COPY
Secretary

President

Countersigned at.....
this.....day of....., 19.....

COPY
.....*Agent*

Concealment, fraud. This entire policy shall be void if, whether before or after a loss, the insured has wilfully concealed or misrepresented any material fact or circumstance concerning this insurance or the subject thereof, or the interest of the insured therein, or in case of any fraud or false swearing by the insured relating thereto.

Uninsurable and excepted property. This policy shall not cover accounts, bills, currency, deeds, evidences of debt, money or securities; nor, unless specifically named hereon in writing, bullion or manuscripts.

Perils not included. This Company shall not be liable for loss by fire or other perils insured against in this policy caused, directly or indirectly, by: (a) enemy attack by armed forces, including action taken by military, naval or air forces in resisting an actual or an immediately impending enemy attack; (b) invasion; (c) insurrection; (d) rebellion; (e) revolution; (f) civil war; (g) usurped power; (h) order of any civil authority except acts of destruction at the time of and for the purpose of preventing the spread of fire, provided that such fire did not originate from any of the perils excluded by this policy; (i) neglect of the insured to use all reasonable means to save and preserve the property at and after a loss, or when the property is endangered by fire in neighboring premises; (j) nor shall this Company be liable for loss by theft.

Other Insurance. Other insurance may be prohibited or the amount of insurance may be limited by endorsement attached hereto.

Conditions suspending or restricting insurance. Unless otherwise provided in writing added hereto this Company shall not be liable for loss occurring

(a) while the hazard is increased by any means within the control or knowledge of the insured; or

(b) while a described building, whether intended for occupancy by owner or tenant, is vacant or unoccupied beyond a period of sixty consecutive days; or

(c) as a result of explosion or riot, unless a fire ensue, and in that event for loss by fire only.

Other perils or subjects. Any other peril to be insured against or subject of insurance to be covered in this policy shall be by endorsement in writing hereon or added hereto.

Added provisions. The extent of the application of insurance under this policy and of the contribution to be made by this Company in case of loss, and any other provision or agreement not inconsistent with the provisions of this policy, may be provided for in writing added hereto, but no provision may be waived except such as by the terms of this policy is subject to change.

Waiver provisions. No permission affecting this insurance shall exist, or waiver of any provision be valid unless granted herein or expressed in writing added hereto. No provision, stipulation or forfeiture shall be held to be waived by any requirement or proceeding on the part of this company relating to appraisal or to any examination provided for herein.

Cancellation of policy. This policy shall be canceled at any time at the request of the insured, in which case this Company shall, upon demand and surrender of this policy, refund the excess of paid premium above the customary short rates for the expired time. This policy may be canceled at any time by this Company by giving to the insured a five days' written notice of cancellation with or without tender of the excess of paid premium above the pro rata premium for the expired time, which excess, if not tendered, shall be refunded on demand. Notice of cancellation shall state that said excess premium (if not tendered) will be refunded on demand.

Mortgagee interests and obligations. If loss hereunder is made payable, in whole or in part, to a designated mortgagee not named herein as the insured, such interest in this policy may be canceled by giving to such mortgagee a ten days' written notice of cancellation.

If the insured fails to render proof of loss such mortgagee, upon notice, shall render proof of loss in the form herein specified within sixty (60) days thereafter and shall be subject to the provisions hereof relating to appraisal and time of payment and of bringing suit. If this Company shall claim that no liability existed as to the mortgagor or owner, it shall, to the extent of payment of loss to the mortgagee, be subrogated to all mortgagee's rights of recovery, but without impairing mortgagee's right to sue; or it may pay off the mortgage debt and require an assignment thereof and of the mortgage. Other provisions relating to the interests and obligations of such mortgagee may be added hereto by agreement in writing.

Pro rata liability This Company shall not be liable for a greater proportion of any loss than the amount hereby insured shall bear to the whole insurance covering the property against the peril involved, whether collectible or not.

Requirements in case loss occurs. The insured shall give immediate written notice to this Company of any loss, protect the property from further damage, forthwith separate the damaged and undamaged personal property, put it in the best possible order, furnish a complete inventory of the destroyed, damaged and undamaged property, showing in detail quantities, costs, actual cash value and amount of loss claimed; **and within sixty days after the loss, unless such time is extended in writing by this Company, the insured shall render to this Company a proof of loss,** signed and sworn to by the insured, stating the knowledge and belief of the insured as to the following: the time and origin of the loss, the interest of the insured and of all others in the property, the actual cash value of each item thereof and the amount of loss thereto, all encumbrances thereon, all other contracts of insurance, whether valid or not, covering any of said property, any changes in the title, use, occupation, location, possession or exposures of said property since the issuing of this policy, by whom and for what purpose any building herein described and the several parts thereof were occupied at the time of loss and whether or not it then stood on leased ground, and shall furnish a copy of all the descriptions and schedules in all policies and, if required, verified plans and specifications of any building, fixtures or machinery destroyed or damaged. The insured, as often as may be reasonably required, shall exhibit to any person designated by this Company all that remains of any property herein described, and submit to examinations under oath by any person named by this Company, and subscribe the same; and, as often as may be reasonably required, shall produce for examination all books of account, bills, invoices and other vouchers, or certified copies thereof if originals be lost, at such reasonable time and place as may be designated by this Company or its representative, and shall permit extracts and copies thereof to be made.

Appraisal. In case the insured and this Company shall fail to agree as to the actual cash value or the amount of loss, then, on the written demand of either, each shall select a competent and disinterested appraiser and notify the other of the appraiser selected within twenty days of such demand. The appraisers shall first select a competent and disinterested umpire; and failing for fifteen days to agree upon such umpire, then, on request of the insured or this Company, such umpire shall be selected by a judge of a court of record in the state in which the property covered is located. The appraisers shall then appraise the loss, stating separately actual cash value and loss to each item; and, failing to agree, shall submit their differences, only, to the umpire. An award in writing, so itemized, of any two when filed with this Company shall determine the amount of actual cash value and loss. Each appraiser shall be paid by the party selecting him and the expenses of appraisal and umpire shall be paid by the parties equally.

Company's options. It shall be optional with this Company to take all, or any part, of the property at the agreed or appraised value, and also to repair, rebuild or replace the property destroyed or damaged with other of like kind and quality within a reasonable time, on giving notice of its intention so to do within thirty days after the receipt of the proof of loss herein required.

Abandonment. There can be no abandonment to this Company of any property.

When loss payable. The amount of loss for which this Company may be liable shall be payable sixty days after proof of loss, as herein provided, is received by this Company and ascertainment of the loss is made either by agreement between the insured and this Company expressed in writing or by the filing with this Company of an award as herein provided.

Suit. No suit or action on this policy for the recovery of any claim shall be sustainable in any court of law or equity unless all the requirements of this policy shall have been complied with, and unless commenced within twelve months next after inception of the loss.

Subrogation. This Company may require from the insured an assignment of all right of recovery against any party for loss to the extent that payment therefor is made by this Company

The Parties to the Contract One party to the contract is the insurance carrier, a stock or mutual company, or other form of organization. The second party is the insured, who is to be indemnified in case of loss. The name of the insured is an important part of the policy. When the interest of the insured is other than the sole or unconditional ownership, the exact nature of the interest should be indicated. Following the name of the insured is the phrase, "legal representatives," which is intended to cover the administrators or executors of an insured who dies during the policy term.

The Premium and Consideration One of the essential elements of a valid contract is a "consideration." The promises of the insurance company are conditional upon the fulfillment of the agreements by the insured and when the policy form is prescribed by the law of the state, the insured may reasonably be expected to be acquainted with the stipulations of the policy.

In Oregon it is illegal for an agent or broker to return part of the premium to the insured by sharing the commission with him.

Description of the Property The fire insurance policy covers property at the designated location only, unless it is covered by a form or blanket policy, which will be considered later in this chapter. The insuring clause may include any one of three limits to the company's liability under the policy: (1) The face value of the policy--a limit of maximum liability, (2) The actual cash value of the interest of the insured at the time of the loss, (3) The cost of repairs or replacement with material of like kind and quality.

Concealment and Fraud (Lines 1 through 6) This clause is the only protection against fraud on the part of the policyholder that the insurance company has in the entire contract. The Federal courts have held that in order for concealment to constitute fraud, it must be willful and intentional.[1] An innocent mistake, or a false statement induced by negligence or reliance on misinformation, will not amount to fraud or false swearing,[2] although it has been held that statements made recklessly without any reasonable belief in their truthfulness will amount to fraud.

Before concealment and fraud can be charged, damage to the insurer must result. The insured is subject to loss if the premium is not commensurate with the hazards represented, or if the insurer, had he known the nature of the hazard, would not have accepted the risk.[3]

Uninsurable, and Excepted Property (Lines 7 through 10) Certain things may not be insured because of the difficulty the insurer would have in determining the loss incurred should the items be lost through fire. Such items include, accounts, bills, currency, desks, evidences of debt, money or securities. Bullion or manuscript may be insured provided they are specifically named in the policy.

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[1]Claflin v. Commercial Insurance Company. 110 U. S. 81.

[2]Little v. Phinex Insurance Company. 123. Mass. 380.

[3]Riegel and Miller. Op. cit. p. 383.

Perils Not Included (Lines 11 through 14) Under the standard policy the insurance company is not liable for loss by fire or other perils insured against when such loss results, directly or indirectly from: (a) enemy attack by armed forces, including action taken by military, naval, or air forces in resisting an actual or an immediately impending enemy attack; invasion; (c) insurrection; (d) rebellion; (e) revolution; (f) civil war; (g) usurped power; (h) order of any civil authority except acts of destruction at the time of, and for the purpose of preventing the spread of fire, provided that such fire did not originate from any of the perils excluded by this policy. Martin explains this provision in the following words:

> In cases of general conflagration, civil authorities are sometimes obliged to dynamite or otherwise destroy buildings in the path of the flames in order to halt the spread of fire. If the fire originates from a peril not excluded in the items (a) through (g), it is covered in the policy. In general, items (a) through (g) are not considered insurable by American insurance companies.[1]

(i) neglect of the insured to use all reasonable means to save and preserve the property at and after a loss, or when the property is endangered by fire in neighboring premises; (j) theft.

Other Insurance (Lines 25 through 27) The standard fire insurance policy does not prohibit other insurance in the same or another company. The policy does, however, reserve the right of the insurance company to prohibit other insurance or to limit the amount of insurance by an endorsement attached to the policy.

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[1]Martin, Howard L. Op. cit. p. 30.

Conditions Suspending or Restricting Insurance (Lines 28 through 37) Unless the policy is otherwise endorsed, this clause sets forth the following three situations which will suspend the insurance coverage: (a) While the hazard is increased by any means within the control or knowledge of the insured; or (b) while a described building, whether intended for occupancy by owner or tenant is vacant or unoccupied beyond a period of sixty consecutive days; or (c) as a result of explosion or riot, unless fire ensue, and in that event for loss by fire only.

These three clauses merely suspend insurance; they do not void the policy. As soon as these conditions no longer exist, the policy again becomes effective. If the likelihood of any of these conditions is known in advance, the policy may have a clause added to provide protection under these conditions. However, if these conditions exist, they materially increase the risk and the insurer reserves the right either to charge a higher premium or to refuse to accept the liability.

Add Provisions (Lines 42 through 48) This clause provides that any other provisions or agreements not inconsistent with the policy or State law may be added in writing.

Waiver Provisions (Lines 49 through 55) It is generally the practice of the insurance companies to help the insured in filing the required papers in collecting any losses. Any permission given to the insured in relation to risk assumed by the company or any relinquishment of a right of the company must be in writing and must be made a part of the policy in order to be effective according to the terms of

the waiver provisions. However, in practice the courts have held that if an agent has knowledge of the existence of a condition which would void the policy and proceeds to issue the policy, the knowledge of the agent constitutes a waiver of the provision, without the necessity of endorsing such waiver to the policy.[1]

Riegel and Miller[2] have pointed out that an agent's powers are frequently broader than are supposed, and that there has therefore been included in the standard insurance form a provision specifically designed (1) to allow waiver by agents of only certain parts of the contract and (2) to allow such waivers only in writing.

Cancellation of the Policy (Lines 56 through 67) The fire insurance policy may be cancelled at the "short ratio" at any time by the insured and when he returns his policy, he will receive from the company the balance of the premium for the unexpired term. This rate is higher than the pro rata premium would be for the same period. The additional charge is to pay the expense that the company incurred in writing the policy and to discourage cancellations.

The policy may be cancelled at any time by the insurance company by giving the insured a five-day written notice of cancellation. In

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[1]Dreyer, Ralph H. and Martin, Howard L. Fire Insurance. San Francisco: General Educational Publications, 1954. p. 39.

[2]Riegel and Miller. Op. cit. p. 370.

this case the return premium is computed pro-rata, the company receiving nothing for the work involved.

Martin observes in the statement which follows, that under the foregoing provision, as it applies in Oregon, the insured may have, after cancellation of the policy by the company, and the required refund of the pro rata share of the premium, protection for the remainder of the five-day period.

> The Oregon Insurance Code contains a conflicting statement with regard to cancellation by the company. It requires, further, that cancellation must be accompanied by payment in cash or registered mailing of money order or bank draft, the pro-rata return premium, if the premium had actually been paid. It is probable that this section could be construed beneficially for an insured who suffered loss after receiving the pro-rata unearned portion of a paid premium.[1]

Although neither the insured nor the insurance company is required to give reasons for cancellation, the principal reasons for cancellation by the insurance company are: increase of hazard, bad physical or moral hazard, unsatisfactory loss ratio, over-insurance, and non-payment of premiums.

Mortgagee Interests and Obligations (Lines 68 through 85) Under this section of the Oregon fire insurance policy, the mortgagee has the same rights as to appraisal, payment, and bringing suit as the insured mortgagor. If the owner fails to render proof of loss, the mortgagee is obligated to do so within 60 days. Should the company pay the mortgagee and not the owner, it may have subrogation of the mortgagee's

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[1]Martin, Howard L. Op. cit. p. 31.

rights or may pay the mortgage debt and require assignment of the mortgage. In this manner the insurer might acquire actual ownership of the property. In case of cancellation, the mortgagee receives ten days' written notice of cancellation rather than the customary five days.

Pro-Rata Liability (Lines 86 through 89) This section is to protect both the insured and the insurer when more than one fire insurance policy protects the same property. In such cases, each company pays a fair proportion of the loss as its policy bears to the entire insurance carried. This is true whether or not the other carrier or carriers are solvent, or whether or not the insured can collect under the other policy or policies carried on the risk.

> Suppose a school building is insured for $100,000. Insurance carried by three insurance companies in the amount of $75,000, $15,000, and $10,000. In event of a $50,000 loss, the companies would be responsible for $37,500, $7,500, and $5,000 respectively. However, if the school district could not collect on one or more of the policies, the pro-rata obligation would remain unchanged. When this principle is fully realized, districts will give great care and consideration to the problem of allocating insurance to companies.[1]

Requirements in Case Loss Occurs (Lines 90 through 122). The exact duties of the insured in case of loss are set forth in the policy. They are very technical and insurance authorities[2] state that in most

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[1]Woodell, Marshall Elton. An Insurance Program for Oregon Schools. Unpublished Ed. D. Dissertation. Oregon State College, 1954. p. 44.

[2]Martin, H. L. Op. cit. p. 31.
Riegel, Robert and Miller, Jerome. Op. cit. p. 456.

cases, they are seldom required. Nevertheless, it is very important that every school board member, principal, and superintendent understand these requirements. The policy requires the insured (1) to give the company immediate written notice of loss in order to protect the property from further damage, (2) to separate damaged and undamaged personal property, (3) to put the insured property in the best possible order.

Lines 94 through 97 are very important in the case of the school district. They state that the insured must furnish a complete inventory of the destroyed, damaged and undamaged property, showing in detail quantities, cost, actual cash value and amount of loss claimed." The company will pay only for the property for which a claim can be sustained. Therefore, it is very important that an adequate system of accounting for school property be adopted and kept up to date at all times.

Lines 97 to 113 list the information required in the formal proof of loss statement. In practice, the adjustor will check these statements as soon as possible. However, within 60 days after the fire, the insured must file such a proof of loss with the insurance company. Sec. 101--1802 of the Oregon Insurance Code requires that the proof of loss statement be submitted within 90 days after the fire.

If the insurance company believes the claim is just and reasonable, there is little likelihood that all of the technicalities of these provisions will be observed, but they may be required if the

insurance company has doubts about either the origin of the fire or the accuracy of the property described in the loss report.

Appraisal (Lines 123 through 140). This clause provides that in the event the insured and the insurer fail to agree as to the actual cash value or the amount of loss, then, on the written demand of either, the settlement shall be settled by appraisers. Each appoints one appraiser, and these select a disinterested umpire. If they fail to agree on an umpire, an umpire is selected by a judge of a court of record in the state in which the property is located. An agreement of any two of the three, when filed with the insurance company, determines the amount of actual cash value of said loss.

Company's Options and Abandonment (Lines 141 through 149) This clause gives the insurance company the option to rebuild or replace the property destroyed or damaged with other of like kind and quality within a reasonable time.

When Loss is Payable (Lines 150 through 156) A loss must be paid within 60 days following an adjustment, agreement, or appraisal.

Suit (Lines 157 through 161) The policy provides that all of the requirements of the policy must be met before a suit may be filed and that any suit must be instituted within 12 months following the loss.

Subrogation (Lines 162 through 165) This clause provides that an insurance company may require from the insured an assignment of his rights of recovery against a third party up to the amount paid the insured on a loss. This right is used only in case a negligent third party was involved in the loss.

Endorsements

Endorsements are used to adapt the standard insurance policy to the special needs of the insured. According to the agreement of the policy, any changes made must be in writing. These changes are known as endorsements. The purpose of these endorsements is to provide for the special type and kind of coverage that may be desired by the insured. Since there are over 200 standard endorsements used with the Standard Form Fire Insurance Policy of Oregon, this chapter will explain only those which appear to be most important to the insuring of school property.

Extended Coverage

This endorsement does not increase the amount of insurance provided in the policy but gives a wider coverage by including risks other than fire. This additional coverage includes direct loss by windstorm, hail, explosion, riot, riot attending a strike, civil commotion, aircraft, vehicles, and smoke.

The extended coverage clause is widely used and is therefore a standardized form. However, this form of coverage cannot be written as a separate policy and in order to obtain the lowest rates, at least 70 per cent co-insurance is required on the Pacific Coast. (See page 45 for discussion of co-insurance endorsement.)

Depreciation Insurance

In settling losses under all standard fire insurance policies, it is customary to pay the insured for the loss on the basis of the actual loss less the depreciation on the building and contents.

STANDARD FORMS BUREAU FORM 202 (JAN. 1950)

EXTENDED COVERAGE ENDORSEMENT

(PERILS OF WINDSTORM, HAIL, EXPLOSION, RIOT, RIOT ATTENDING A STRIKE, CIVIL COMMOTION, AIRCRAFT, VEHICLES, SMOKE, EXCEPT AS HEREINAFTER PROVIDED)

Attached to and forming part of Policy No..... of the..... NAME OF INSURANCE COMPANY.....

Issued to..... NAME OF INSURED.....

Agency at..... CITY OR TOWN AND STATE....., Dated.....

Rate for Extended Coverage..... Effective Date of this Endorsement.....

In consideration of $..... premium, and subject to provisions and stipulations (hereinafter referred to as "provisions") herein and in the policy to which this endorsement is attached, including riders and endorsements thereon, the coverage of this policy is extended to include direct loss by WINDSTORM, HAIL, EXPLOSION, RIOT, RIOT ATTENDING A STRIKE, CIVIL COMMOTION, AIRCRAFT, VEHICLES AND SMOKE.

THIS ENDORSEMENT DOES NOT INCREASE THE AMOUNT OR AMOUNTS OF INSURANCE PROVIDED IN THE POLICY TO WHICH IT IS ATTACHED.

If this policy covers on two or more items, the provisions of this endorsement shall apply to each item separately.

SUBSTITUTION OF TERMS: In the application of the provisions of this policy, including riders and endorsements (but not this endorsement), to the perils covered by this Extended Coverage Endorsement, wherever the word "fire" appears there shall be substituted therefor the peril involved or the loss caused thereby, as the case requires.

APPORTIONMENT CLAUSE: THIS COMPANY SHALL NOT BE LIABLE FOR A GREATER PROPORTION OF ANY LOSS FROM ANY PERIL OR PERILS INCLUDED IN THIS ENDORSEMENT THAN (1) THE AMOUNT OF INSURANCE UNDER THIS POLICY BEARS TO THE WHOLE AMOUNT OF FIRE INSURANCE COVERING THE PROPERTY, WHETHER COLLECTIBLE OR NOT, AND WHETHER OR NOT SUCH OTHER FIRE INSURANCE COVERS AGAINST THE ADDITIONAL PERIL OR PERILS INSURED HEREUNDER; (2) NOR FOR A GREATER PROPORTION THAN THE AMOUNT OF INSURANCE UNDER THIS POLICY BEARS TO THE AMOUNT OF ALL INSURANCE, WHETHER COLLECTIBLE OR NOT, COVERING IN ANY MANNER SUCH LOSS; FURTHERMORE, IF THERE BE INSURANCE OTHER THAN FIRE INSURANCE COVERING ANY ONE OR MORE OF THE PERILS CAUSING LOSS HEREUNDER, COVERING SPECIFICALLY ANY INDIVIDUAL UNIT OF PROPERTY INVOLVED IN THE LOSS, ONLY SUCH PROPORTION OF THE INSURANCE UNDER THIS POLICY SHALL APPLY TO SUCH UNIT SPECIFICALLY COVERED, AS THE VALUE OF SUCH UNIT SHALL BEAR TO THE TOTAL VALUE OF ALL THE PROPERTY COVERED UNDER THIS POLICY, WHETHER SUCH OTHER INSURANCE CONTAINS A SIMILAR CLAUSE OR NOT.

WAR RISK EXCLUSION CLAUSE: THIS COMPANY SHALL NOT BE LIABLE FOR LOSS CAUSED DIRECTLY OR INDIRECTLY BY (a) HOSTILE OR WARLIKE ACTION IN TIME OF PEACE OR WAR, INCLUDING ACTION IN HINDERING, COMBATING OR DEFENDING AGAINST AN ACTUAL, IMPENDING OR EXPECTED ATTACK, (1) BY ANY GOVERNMENT OR SOVEREIGN POWER (DE JURE OR DE FACTO), OR BY ANY AUTHORITY MAINTAINING OR USING MILITARY, NAVAL OR AIR FORCES; OR (2) BY MILITARY, NAVAL OR AIR FORCES; OR (3) BY AN AGENT OF ANY SUCH GOVERNMENT, POWER, AUTHORITY OR FORCES, IT BEING UNDERSTOOD THAT ANY DISCHARGE, EXPLOSION OR USE OF ANY WEAPON OF WAR EMPLOYING ATOMIC FISSION OR RADIOACTIVE FORCE SHALL BE CONCLUSIVELY PRESUMED TO BE SUCH A HOSTILE OR WARLIKE ACTION BY SUCH A GOVERNMENT POWER, AUTHORITY OR FORCES; (b) INSURRECTION, REBELLION, REVOLUTION, CIVIL WAR, USURPED POWER, OR ACTION TAKEN BY GOVERNMENTAL AUTHORITY IN HINDERING, COMBATING OR DEFENDING AGAINST SUCH AN OCCURRENCE.

WAIVER OF POLICY PROVISIONS: A claim for loss from perils included in this endorsement shall not be barred because of change of occupancy, nor because of vacancy or unoccupancy.

PROVISIONS APPLICABLE ONLY TO WINDSTORM AND HAIL: THIS COMPANY SHALL NOT BE LIABLE FOR LOSS CAUSED DIRECTLY OR INDIRECTLY BY (a) FROST OR COLD WEATHER OR (b) SNOWSTORM, TIDAL WAVE, HIGH WATER, OVERFLOW OR ICE (OTHER THAN HAIL), WHETHER DRIVEN BY WIND OR NOT.

THIS COMPANY SHALL NOT BE LIABLE FOR LOSS TO THE INTERIOR OF THE BUILDING OR THE PROPERTY COVERED THEREIN CAUSED, (a) BY RAIN, SNOW, SAND OR DUST, WHETHER DRIVEN BY WIND OR NOT, UNLESS THE BUILDING COVERED OR CONTAINING THE PROPERTY COVERED SHALL FIRST SUSTAIN AN ACTUAL DAMAGE TO ROOF OR WALLS BY THE DIRECT FORCE OF WIND OR HAIL AND THEN SHALL BE LIABLE FOR LOSS TO THE INTERIOR OF THE BUILDING OR THE PROPERTY COVERED THEREIN AS MAY BE CAUSED BY RAIN, SNOW, SAND OR DUST ENTERING THE BUILDING THROUGH OPENINGS IN THE ROOF OR WALLS MADE BY DIRECT ACTION OF WIND OR HAIL OR (b) BY WATER FROM SPRINKLER EQUIPMENT OR OTHER PIPING, UNLESS SUCH EQUIPMENT OR PIPING BE DAMAGED AS A DIRECT RESULT OF WIND OR HAIL.

THIS COMPANY SHALL NOT BE LIABLE FOR LOSS TO THE FOLLOWING PROPERTY: (1) HAY, STRAW AND FODDER, ALL ONLY WHILE UNBALED AND LOCATED OUTSIDE OF BUILDING(S); OR (2) GROWING CROPS, WHEREVER LOCATED.

TRADE MARK STANDARD REG. U.S. PAT. OFF.
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JAN. 1950

THE PROVISIONS PRINTED ON THE BACK OF THIS FORM ARE HEREBY REFERRED TO AND MADE A PART HEREOF.

..... Agent
Agent's Signature

CAUTION: WHEN THIS ENDORSEMENT IS ATTACHED TO ONE FIRE POLICY, THE INSURED SHOULD SECURE LIKE COVERAGE ON ALL FIRE POLICIES COVERING THE SAME PROPERTY.

(Reverse side of this form is shown on next page.)

PROVISIONS REFERRED TO IN AND MADE PART OF THIS FORM (No. 202)

PROVISIONS APPLICABLE ONLY TO EXPLOSION: LOSS BY EXPLOSION SHALL INCLUDE DIRECT LOSS RESULTING FROM THE EXPLOSION OF ACCUMULATED GASES OR UNCONSUMED FUEL WITHIN THE FIREBOX (OR THE COMBUSTION CHAMBER) OF ANY FIRED VESSEL OR WITHIN THE FLUES OR PASSAGES WHICH CONDUCT THE GASES OF COMBUSTION THEREFROM, BUT THIS COMPANY SHALL NOT BE LIABLE FOR LOSS BY EXPLOSION, RUPTURE OR BURSTING OF STEAM BOILERS, STEAM PIPES, STEAM TURBINES, STEAM ENGINES OR FLY-WHEELS, OWNED, OPERATED OR CONTROLLED BY THE INSURED OR LOCATED IN THE BUILDING(S) DESCRIBED IN THIS POLICY.

ANY OTHER EXPLOSION CLAUSE MADE A PART OF THIS POLICY IS SUPERSEDED BY THIS ENDORSEMENT.

PROVISIONS APPLICABLE ONLY TO RIOT, RIOT ATTENDING A STRIKE AND CIVIL COMMOTION: Loss by riot, riot attending a strike or civil commotion shall include direct loss by acts of striking employees of the owner or tenant(s) of the described building(s) while occupied by said striking employees and shall also include direct loss from pillage and looting occurring during and at the immediate place of a riot, riot attending a strike or civil commotion. THIS COMPANY SHALL NOT BE LIABLE, HOWEVER, FOR LOSS RESULTING FROM DAMAGE TO OR DESTRUCTION OF THE DESCRIBED PROPERTY OWING TO CHANGE IN TEMPERATURE OR INTERRUPTION OF OPERATIONS RESULTING FROM RIOT OR STRIKE OR OCCUPANCY BY STRIKING EMPLOYEES OR CIVIL COMMOTION, WHETHER OR NOT SUCH LOSS, DUE TO CHANGE IN TEMPERATURE OR INTERRUPTION OF OPERATIONS, IS COVERED BY THIS POLICY AS TO OTHER PERILS.

PROVISIONS APPLICABLE ONLY TO LOSS BY AIRCRAFT AND VEHICLES: Loss by aircraft includes direct loss by objects falling therefrom. THE TERM "VEHICLES," AS USED IN THIS ENDORSEMENT, MEANS VEHICLES RUNNING ON LAND OR TRACKS BUT NOT AIRCRAFT. THIS COMPANY SHALL NOT BE LIABLE, HOWEVER, FOR LOSS (a) BY ANY VEHICLE OWNED OR OPERATED BY THE INSURED OR BY ANY TENANT OF THE DESCRIBED PREMISES; (b) BY ANY VEHICLE TO FENCES, DRIVEWAYS, WALKS OR LAWNS; (c) TO ANY AIRCRAFT OR VEHICLE INCLUDING CONTENTS THEREOF OTHER THAN STOCKS OF AIRCRAFT OR VEHICLES IN PROCESS OF MANUFACTURE OR FOR SALE.

PROVISIONS APPLICABLE ONLY TO SMOKE: THE TERM "SMOKE," AS USED IN THIS ENDORSEMENT, MEANS ONLY SMOKE DUE TO A SUDDEN, UNUSUAL AND FAULTY OPERATION OF ANY HEATING OR COOKING UNIT, ONLY WHEN SUCH UNIT IS CONNECTED TO A CHIMNEY BY A PIPE OR VENT, AND WHILE IN OR ON THE PREMISES DESCRIBED IN THIS POLICY, EXCLUDING, HOWEVER, SMOKE FROM FIREPLACES OR INDUSTRIAL APPARATUS.

PROVISIONS APPLICABLE ONLY WHEN THIS ENDORSEMENT IS ATTACHED TO A POLICY COVERING BUSINESS INTERRUPTION (USE AND OCCUPANCY), EXTRA EXPENSE, ADDITIONAL LIVING EXPENSE, RENTS, LEASEHOLD INTEREST, PROFITS AND COMMISSIONS, OR CONSEQUENTIAL LOSS: WHEN THIS ENDORSEMENT IS ATTACHED TO A POLICY COVERING BUSINESS INTERRUPTION (USE AND OCCUPANCY), EXTRA EXPENSE, ADDITIONAL LIVING EXPENSE, RENTS, LEASEHOLD INTEREST, PROFITS AND COMMISSIONS, OR CONSEQUENTIAL LOSS, THE TERM "DIRECT," AS APPLIED TO LOSS, MEANS LOSS, AS LIMITED AND CONDITIONED IN SUCH POLICY, RESULTING FROM DIRECT LOSS TO DESCRIBED PROPERTY FROM PERILS INSURED AGAINST; AND, WHILE THE BUSINESS OF THE OWNER OR TENANT(S) OF THE DESCRIBED BUILDING(S) IS INTERRUPTED BY A STRIKE AT THE DESCRIBED LOCATION, THIS COMPANY SHALL NOT BE LIABLE FOR ANY LOSS OWING TO INTERFERENCE BY ANY PERSON(S) WITH REBUILDING, REPAIRING OR REPLACING THE PROPERTY DAMAGED OR DESTROYED OR WITH THE RESUMPTION OR CONTINUATION OF BUSINESS.

conformed [illegible]
under a pol[illegible]

This depreciation clause, when added to the policy, enables the school district to collect the full replacement value of the building without any deductions whatever for depreciation if the building is insured for a sum large enough to include such settlements.[1]

This endorsement may be written only on buildings which have the 100 per cent co-insurance endorsement.

Vandalism and Malicious Mischief

An endorsement covering vandalism and malicious mischief may be written only if the extended coverage endorsement is a part of the fire policy.

Many school districts have suffered heavy loss from damage done by vandals. Losses collectible under this clause include the acts of "vandalism and malicious mischief" which include only willful or malicious physical injury or destruction of property covered in the policy. This endorsement does not include loss from glass breakage or from pilferage, theft, burglary, or larceny, or from explosion. This endorsement is not excessive in cost and is highly recommended by Linn and Joyner.[2]

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[1]Linn and Joyner. Op. cit. p. 55.

[2]Ibid. p. 59.

Coinsurance Average Clause Insurance

The term "coinsurance" is an unfortunate choice of words since it promotes confusion by implying that both parties to an insurance contract share a loss in the event of fire, the share to be determined by the percentage of coinsurance carried. Some persons have believed that a 90 per cent coinsurance clause requires the insurance company to pay 90 per cent of the loss up to the amount of the policy (on the same basis as deductible automobile insurance), and that the insured accepts the remaining 10 per cent of the loss. This interpretation of the coinsurance policy is entirely wrong, for insurance companies will meet the loss up to the amount of the policy if the insured has followed the requirement that the amount of insurance actually carried corresponds with the amount required to be carried. In case of the 90 per cent clause, the building or buildings must be insured for 90 per cent of the insurable value.

A very large percentage of the fire losses that occur are only fractional losses. There are far more fires resulting in only 1 per cent damage than there are fires resulting in 10 per cent damage, and the 20 per cent damage losses are far more numerous than those of 75 per cent or more. Thus, the coinsurance plan proposes to correct such an inequity, in part at least, through the use of a graded schedule of rates. The higher the ratio of insurance to insurable value, the lower the rate per $100 of insurance. The insured is responsible for determining the insurable value of the property to be insured and for

keeping the appropriate amount of insurance in accordance with the required percentage of the policy. Should the insured fail to maintain insurance up to the required percentage of insurable value and should a partial loss occur, the insured school district suffers a pro rata penalty in the amount of insurance recoverable. The following formula indicates the operation of the coinsurance clause in case of loss:

$$\frac{\text{Amount of Insurance Carried}}{\text{Amount Required by Form}} \times \text{Loss} = \text{Recovery up to Face of Policy}$$

As an example of the operation of this formula, let us assume that District A has school buildings valued at $1,000,000. The property is insured under coinsurance coverage at 90 per cent of the total insurable value. The school district purchases insurance totaling $900,000. A loss occurs amounting to $600,000, and the formula is applied as follows:

$$\frac{\$900,000}{900,000} \times \$600,000 = \$600,000$$

In 1925, Melchior[1] found that many school districts in New York State were using the coinsurance clause in order to purchase better insurance coverage at a lower rate. He checked 48 school districts which were purchasing 80 per cent coinsurance policies and found that most administrators of the school insurance program did not understand

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[1]Melchior, William T. Insuring Public School Property. Teachers' College, Columbia University. Contributions to Education. No. 168. New York: 1925.

the provisions of the policy and many were not purchasing the required amount of fire insurance protection to meet the provisions of the policy. He reported that 20 states prohibited the use of the coinsurance clause at that time.

Later studies have indicated that the coinsurance clause is now being used more widely by public school systems. Upton's study of 180 city school districts in the United States indicated that 91 per cent were now taking advantage of the savings through coinsurance. He found that the cities carrying coinsurance were about evenly divided between those carrying 80 per cent and those carrying 90 per cent coverage.[1]

Policy Coverage

A number of methods of insuring school property as to location are available. Briefly they are as follows:

1. Insuring property on one location This type of insurance may be written with a specific amount on an individual business and a specific amount on the contents of an individual building or a blanket policy on an individual building and its contents.

2. Insuring property at all locations Many school districts use this plan where a blanket policy on all buildings and their contents at all sites or locations at which the school district has any property to insure covered under one policy without describing the exact property and location.

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[1]Upton, Ronald H. A Study of Fire-Insurance Cost and Practices in City School Districts. Unpublished Ed. D. Dissertation. University of Southern California. Los Angeles: 1947.

The blanket policy covering of buildings and their contents at one or all locations represents the most popular method now in use. Of the 142 districts studied in 1947 by the Insurance Committee of the Public School Business Officials' Association,[1] 111 reported the use of blanket policies covering all property in the entire district in one policy or series of policies. Fifteen districts had separate policies for all buildings at each site and five had separate policies for each building and contents.

If a city is large and has many school buildings at separate sites, there is a distinct disadvantage to the blanket policy covering all school property, since insurable values would have to be proven. In the case of a fire where each building and contents are insured under a separate policy, insurable values would then have to be proven only for the building and contents on the site. This adjustment would affect fewer policies and involve less clerical work.

Blanket insurance is advantageous for the following reasons:

1. The district definitely knows at all times that property at locations designated in the blanket form is insured.

2. Removal of property from one school to another at the location designated in the blanket form is covered.

3. The district has but one rate to use for the locations covered, and errors are not as likely to occur when policies are being checked. With specific insurance, there are many individual rates on buildings and contents.

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[1]Linn and Joyner. Op. cit. p. 93.

Insurance Reserve Plan or Self-Insurance

Some school systems do not purchase fire insurance protection from stock or mutual companies, but seek to provide their own either by building up their own reserve funds or by participating in a state program of self-insurance which provides for coverage of public school property.

Self-insurance programs have developed as the result of the feeling on the part of states and/or school districts that self-insurance provides adequate protection and that it is much less expensive than stock or mutual insurance. It is not the intent here to discuss either the extent or the nature of self-insurance in detail since Chapter V is devoted to this subject. Suffice it to say here that in five states a state program of self-insurance provides public school coverage. There are in addition an indeterminate number of local school district self-insurance programs, representative ones of which will be discussed in Chapter V.

Replacement Without Insurance or Reserve Funds

Some very large school systems, possessed of extensive credit, neither purchase stock or mutual insurance nor develop their own self-insurance reserves. They count on assuming any fire losses when they occur, meeting the loss through use of their credit. In such a district it may be possible to make some replacements from the regular school budget and any massive losses are met through use of the district's bonding power.

New York City, for example, which has for many years carried no fire insurance on its public property, has a credit which is as great as the resources of any of the more reputable insurance companies.[1] It is reported to have found this a very economical way of handling fire losses. Replacement without insurance as characterized by New York City public schools is in no sense unique, for it has been worked out before in other jurisdictions. This aspect of protection will also be discussed at greater length in Chapter V.

Summary

Local school boards are faced with the responsibility of protecting the school district from heavy financial losses by establishing an adequate fire insurance program for protection of the school district's property.

This responsibility has been met in different school districts by: (1) purchasing insurance with stock or mutual companies, (2) self-insurance by establishing a reserve fund, and (3) carrying no insurance and meeting fire losses, when they occur, out of general revenues or bond issues. The first of these was treated in some detail in this chapter.

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[1]Linn, H. H. and Joyner, S. C. Op. cit. p. 70.

Some of the principles which apply to insurance generally, including school insurance, were discussed. Briefly they are:

1. The social aspects of insurance involves the transferring of risk from an individual or group of individuals to a carrier and thus eliminates the risk as far as the policyholder is concerned.

2. The transfer of this risk is based upon the law of averages, whose operation is dependent upon there being a large number of insured risks randomly selected.

3. The insurance policy as a contract between two parties is based upon an agreement, a mutual knowledge of all material facts. To collect upon this contract, the insured must have suffered loss.

4. The contract should be in form required by law.

The insurance contract for Oregon was standardized by law in 1915 when the state adopted the Oregon Standard Fire Insurance Policy, which is the only insurance policy written into the law of this state in its entirety. The Oregon Policy insures against all direct loss by fire, lightning, and by removal from premises endangered by fire. The requirements of this policy were discussed in Chapter II with emphasis placed upon its application to the public school fire insurance program.

Endorsements are used to adapt the Oregon Standard Fire Insurance Policy to the special needs of the insured. There are over two hundred of these endorsements which have been standardized. However, the only ones discussed in this chapter were:

1. Extended coverage includes direct loss by windstorm, hail, explosion, riot, riot attending a strike, civil commotion, aircraft, vehicles and smoke.

2. Depreciation insurance, when added to the policy, enables the insured to collect the full replacement value of the building if destroyed by fire.

3. Vandalism and malicious mischief, which protects the insured against willful or malicious physical injury to property covered in the policy.

4. Coinsurance is a contract whereby the insured agrees to carry a given ratio of insurance to the insurable in order to obtain lower insurance rates. The higher the ratio of insurance to the insurable value, the lower the premium rate. Should the insured fail to maintain insurance up to the required percentage of insurable value and a partial loss occurs, the insured school district suffers a pro rata penalty in the amount of insurance recoverable.

5. The insurance policy may be written to cover property at one location or insure property at more than one location. The latter policy is referred to as a blanket policy and is used by many school districts to cover buildings and contents at all locations.

CHAPTER III

FIRE INSURANCE PRACTICES AND POLICIES OF OREGON SCHOOL DISTRICTS

In the preceding chapter, three methods for meeting fire losses in school districts were considered. One of these, the purchase of stock or mutual company fire insurance, was discussed in some detail. In the present chapter, attention will be devoted to a consideration of the practices and policies of Oregon school districts in the management of their insurance programs.[1]

Information concerning school district policies and practices was secured principally by questionnaire, supplemented by personal visitation to districts and a check of the reported data against other available sources of information.

The questionnaire was sent to the superintendents of schools in every first and second class district in the state and to the clerk of every third class district. Questionnaires were completed and returned by 91 per cent (88) of the first class districts, 84 per cent (157) of the second class districts, and 30 per cent (162) of the third class districts.

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[1]Of the districts reporting all except two, both one room rural school districts, protect their property against fire loss through stock or mutual company insurance programs.

The reported policies and practices of the Oregon school districts will be presented in terms of the following major areas:

1. Provisions for administrative control of the insurance program
2. Provisions for maintaining an adequate appraisal of school property and equipment
3. Provisions for selection of insurance companies and agents
4. Provisions for adapting the insurance program to the needs of the district (extent and nature of endorsements used)

Administrative Responsibility for Management of The School Insurance Program

Important to the prudent management of the school district's affairs is a keen appreciation on the part of the board of education of the necessity for defining clearly the board's role and that of its agents. This is nowhere more true than in the management of the school fire insurance program. The board of education, where it has jurisdiction over a large enough school district to permit the hiring of a full-time executive officer (superintendent), should place in his hands or in the hands of the business manager the responsibility for the preparation of administrative proposals concerning the insurance program, for submission to the board for consideration. The executive should then be held responsible for the administration of the program.

The success of the insurance program will depend in large measure upon the skill with which this responsibility is delegated by the board, the astuteness of the board in its consideration of the proposals and procedures recommended, and its evaluation of the success of these procedures in operation.

In Oregon, evidence is to the effect that in first class districts the boards of education have placed the responsibility for the insurance program in the hands of the superintendent of schools, with two exceptions where the business manager has been delegated this responsibility. In the smaller districts, in which there is no administrative head of the schools, the responsibility for the program is handled variously. In some instances, the board as a whole appears not only to establish the policies but also to administer the program. In many instances, the board seeks the active assistance of a local insurance agent or a representative of the agents' association who serves the board in a semi-administrative capacity by recommending to the board the nature of the coverage to be purchased, and then advising the board as to the details of the letting of the insurance contracts. In some instances, the insurance advisor to the board is given the major share of the school district's insurance business.

The responsibility for the insurance program, as all other phases of school management, rests with the board of education. The major decisions as to the types and amounts of insurance to be purchased and the form of coverage are matters concerning which the board should make final decision.

In some of the smaller school districts where the insurance program has been the responsibility solely of the clerk and the board, it was found that not one member of the board knew the amount of insurance carried or the different endorsements which had been added to the policies.

Appraisal of School Property and Equipment

As was noted in Chapter II of this study an economical insurance program contemplates the use of coinsurance. It was noted, too, that the extent of the recovery on losses under coinsurance policies is affected by the extent to which the school district is able to demonstrate that it has maintained its fire insurance at the percentage of insurable value agreed to in the policy. It is, therefore, of great importance to a good insurance program that the board of education maintain a current, up-to-date appraisal of the school district's property.

There are evidences that some school districts have never established any consistent policies which would insure the maintenance of these important records. Thirty-five years ago Portland was wrestling with the problem of establishing adequate policies and practices for maintaining an adequate evaluation of the worth of public school property.[1] The present writer's review of the annual school reports for the period 1948-53 indicates that Portland's problem of 35 years ago is still a major one with some school districts in Oregon, for they are reporting, year after year, the same value of school property even though it is known that there has been a sizeable increase in the value of buildings and equipment.

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[1]Thomas, R. H. "Fire Insurance in the Public Schools." American School Board Journal. LVIII. No. 3. Sept. 1918.

Ordinarily, where fire losses are involved, insurance companies will accept the word of the school district concerning property values and losses. However, in the event of a significant loss, the school district must have adequate records and inventories of all existing buildings, materials, and equipment, which are covered by the insurance policy. The insurance adjusters check on the value of the insured property, and the adjustment is made on the replacement value[1] at the time of the fire. It is, therefore, necessary to buy insurance based upon this valuation and the district must be able to support the accuracy of its valuation in the event of loss.

Appraisal of Buildings

The problem of arriving at an appraisal of buildings for insurance purposes is that of securing an estimate of the "insurable value." The insurable value of a building is usually thought of as being the replacement value minus depreciation. Since the terms of the Oregon Standard Fire Insurance Policy make clear that insurance companies are not liable for an indemnity greater than the actual loss of property suffered, regardless of the amount of insurance carried, it is extremely important that great care be exercised in arriving at insurable value in order to avoid over-insuring property.

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[1]Actual cost of replacement less depreciation.

Holmes[1] showed that it is a very common practice for school districts to purchase insurance coverage in greater amounts than could be collected on in the event of fire. In comparing the value of public school buildings in Oregon with the insurance carried, it was found by the writer that this condition also exists in many Oregon school districts.

Data from the 396 school districts cooperating in this study indicate that there is considerable variation in interpretation of insurable value. Approximately 42 per cent of the reporting districts (182) indicate that insurable value is determined by the replacement value less exclusions[2] and depreciation; 22 per cent (91) report the use of original cost less depreciation and 9 per cent (37) report the use of original cost. (Table I)

The foregoing data suggest two possible sources of error in the insurance programs of Oregon school districts. Not only do all districts face the difficult technical problem of appraisal of property, but some districts (those defining insurable value as "original cost"or "original cost less depreciation") apparently have no clear idea of what constitutes insurable value. This misunderstanding may lead either to under-insuring or over-insuring of the district's property.

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[1]Holmes, Warren S. "How The Cost of Insurance on Public School Property Can Be Reduced." American School Board Journal. Vol. 87. August, 1933. pp. 23-24.

[2]Exclusions--the cost of foundations and excavations.

TABLE I

BASIS FOR DETERMINING INSURABLE VALUE OF
SCHOOL BUILDINGS IN OREGON SCHOOL DISTRICTS

Districts	Number of Districts Reporting		Original Cost		Original Cost Less Depreciation		Replacement Value[1]		Other Means		No Answer	
	No.	Per Cent[2]	No.	Per Cent[3]	No.	Per Cent[3]	No.	Per Cent[3]	No.	Per Cent[3]	No.	Per Cent[3]
1	2	3	4	5	6	7	8	9	10	11	12	13
First Class	88	91	4	5	18	20	39	44	19	22	8	9
Second Class	157	84	9	6	49	31	91	58	6	3	2	1
Third Class	151	35	22	35	30	15	52	34	23	15	24	15
Total	396		37	9	91	22	182	42	48		34	

[1]Replacement Value is the actual cash value of a building less exclusions and depreciation.

[2]Per Cent of total school districts.

[3]Per Cent of districts reporting.

The estimate of insurable value in any district must rest upon an adequate property accounting system which will maintain an accurate record of all property acquisitions by the school district, their location, their initial cost in detail, and their probable rates of depreciation. The Portland Public Schools through a comparative study of school appraisals have developed a definition of insurable value illustrated in Table II. It will be observed that Portland takes into account original cost, exclusions, depreciation and replacement value.

If depreciation is to be soundly estimated, policies must be adopted by the school board consonant with good practice. A number of proposals for charging off depreciation of school buildings have been made. Linn and Joyner[1] include the Los Angeles policies as to rate of building depreciation as illustrative of good practice (page 63). It will be observed that the recommended rate of depreciation ranges from 1½ per cent for buildings of fireproof construction to 3½ per cent for buildings of unprotected metal construction. The foregoing rates are very similar to those suggested by the National Association of Public School Business Officials.[2]

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[1]Linn, H. H. and Joyner, S. C. Op. cit. p. 70.

[2]National Association of Public School Business Officials. Committee on Insurance Research. An Investigation of Insurance Practices. Pittsburgh, Pennsylvania, 1941.

TABLE II

PORTLAND PUBLIC SCHOOLS

INSURANCE APPRAISAL FORM

SCHOOL	BUILDINGS										
	Class	Year Built	Original Cost	Exclusions	Value Less Exclusions	Index When Built	Present Index	Replacement Value	Per Cent Value After Depreciation	Insurable Value	Total Insurable Value of Buildings
1	2	3	4	5	6	7	8	9	10	11	12
Woodlawn	A	1926	$ 286,173	$ 62,468	$ 223,785	184	327	$397,563	78.6	$ 312,485	$
Buildings										2,137	134,622
Betterment											
	D	1911	24,613	4,274	20,339	95	329	70,436	44.1	31,062	
Woodmere	D	1912	39,478	7,223	32,255	97	329	109,402	45.0	49,231	
"	D	1913	32,133	5,273	26,860	100	329	88,369	45.9	40,561	
"										15,510	136,364
Buildings											
Betterment	D	1928	10,367	4,198	6,169	185	329	10,972	59.6	6,539	6,539
Gymnasium											
	D	1910	30,647	4,610	26,037	96	329	89,231	43.2	38,548	
Woodstock	D	1917	68,558	13,510	55,048	129	329	140,394	49.5	69,494	
"	D	1925	80,533	14,577	65,956	188	329	115,423	56.7	65,445	
"										9,325	182,813
Buildings											
Betterment											
Total			29,058,069	5,574,904	23,483,165			38,841,951		$31,149,944	$31,149,944

TABLE II (CONTINUED)

SCHOOL	CONTENTS				
	FIXED CONTENTS		Total Insurable Value of	MOVABLE CONTENTS	
	Dec. 1951 Inventory	Insurable Value (70%)		Dec. 1951 Inventory	Insurable Value (70%)
1	2	3	4	5	6
Woodlawn					
Buildings Betterment	$ 1,455	$ 1,019	$ 315,641	$ 42,073	$ 29,451
Woodmere					
"					
"					
Buildings Betterment	768	538	136,902	35,115	24,581
Gymnasium	---	---	6,539	580	406
Woodstock					
"					
"					
Buildings Betterment	---	---	182,813	40,561	28,393
Total	$160,407	$112,287	$31,262,231	$4,798,601	$3,359,030

CLASSES OF BUILDINGS
(By type of Construction)

	Rate of Depreciation
1. Fireproof Construction* (a) 4-hr. fire-resistive exterior nonbearing walls and wall panels (b) 4-hr. fire-resistive bearing walls and columns (c) 4-hr. fire-resistive floors, roofs and corridor partitions (d) Permanent partitions of noncombustible materials	1 1/2 % per year with maximum depreciation of 70%
2. Semifireproof Construction (a) 4-hr. fire-resistive exterior nonbearing walls and wall panels. (b) 3-hr. fire-resistive columns and bearing walls (c) 2-hr. fire-resistive floors and roofs (d) Corridor and permanent partitions of 1-hr. fire-resistive construction or of noncombustible materials	1 3/4 % per year with maximum depreciation of 70%
3. Heavy Timber Construction (a) Exterior walls of approved masonry or reinforced concrete (b) Interior structural elements of heavy timbers or 1-hr. protected steel on reinforced concrete (c) Structural elements supporting masonry walls shall have not less than 3-hr. fire resistance	1 3/4 % per year with maximum depreciation of 70%
4. Ordinary Construction (a) Exterior walls of approved masonry or reinforced concrete (b) Interior bearing walls, floors, roofs, and partition may be of ordinary wood construction, steel, masonry, or reinforced concrete, etc.	1 3/4 % per year with maximum depreciation of 70%

*Exterior and interior bearing walls shall be of approved masonry or of reinforced concrete; building frame may be of steel or of reinforced concrete.

5. Light Noncombustible Construction (a) Exterior enclosure walls of noncombustible materials with minimum 2-hr. fire-resistive rating (b) All interior structural members: floor, roof, wall, etc. shall be of incombustible materials.	2 % per year with maximum depreciation of 70%
6. Frame Construction (a) All buildings in which exterior walls and interior construction are wholly or partly of wood. This includes masonry veneer, metal, or stucco on frame.	2 1/2 % per year with maximum depreciation of 70%
7. Unprotected Metal Construction (a) Structural supports of unprotected metal; enclosing walls and roofing are of sheet metal or other noncombustible materials	3 1/2 % per year with maximum depreciation of 70%

In adjusting insurable values for variations in material and labor costs appraisers use building cost index figures which reflect these differences over periods of years and months. These indices apply only in the specific territory where the material prices and labor rates upon which they are calculated prevail.

It is important that the selection of a reliable index should be entrusted only to someone familiar with building costs. A school official interested in obtaining replacement cost index figures which would apply in his area should consult with a reliable agent or company representative for information as to best available sources. Competent architects usually are acquainted with the building cost indices applying to their region. The Engineering News-Record[1] is one good source of information.

The preceding method of depreciation has validity, but there is substantial variation in the depreciation rates considered appropriate for different classes of school buildings.

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[1]Published by McGraw-Hill Publishing Company, Inc., New York.

Appraisal of Contents

In the event of fire loss, the insurance adjustment covering the contents of buildings must rest upon an up-to-date inventory showing the quantity and cost of all articles, as well as the indemnity claimed thereon. This is true irrespective of the type of insurance policy the school is carrying. Many schools maintain an inventory by having each department make a physical inventory once a year and list each item showing the cost at the then prevailing prices. The ideal system, however, would be to have a perpetual inventory with periodic adjustments for fluctuations of values and for depreciation. Whichever plan is used, a complete inventory listing all materials and equipment must be available if the administration is to protect the school district against loss by fire.

There seems to be no general agreement among appraisal authorities as to the rates for depreciation of equipment. The maintenance, repair, and replacement policy of the school district will largely control these rates. Marshall and Stevens, Valuation Engineers, suggest an average depreciation rate for plant equipment as a whole of 3.3 per cent with a salvage value of 13 per cent.[1] Other suggested rates vary, some being as high as 8 or 10 per cent.[2] Probably the best procedure for

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[1]Marshall and Stevens, Valuation Engineers, 610 South Broadway, Los Angeles, California.

[2]Linn, H. H. and Joyner, S. C. Op. cit. p. 87.

school officials is to establish a depreciation rate based upon the average life of the equipment in use in their own district. These figures should then be used to check with the most reliable fire adjustment bureau in the area in order to make sure adjustments could be made upon this basis in case of a loss through fire.

A point that should not be overlooked when fire insurance schedules are arranged is that building rates are usually lower than rates for contents, and that many pieces of permanently fixed equipment that might ordinarily be considered under the head of "contents" may be included as part of the building and thus be insured at lower rates. Among the types of fixed equipment that may be classified under the building rates are fixed desks, laboratory tables, bookcases, counters, lockers, manual training machines, plumbing fixtures, lighting fixtures, and other stationary equipment.

Who Makes the Appraisals

The value of an appraisal depends solely on the competence of the agent or agency making the appraisal. It becomes important then that schoolboards be assured of a high level of competency in the agent making the appraisal.

A variety of agents have been used by school districts in the appraisal of property, some of the more commonly used being: appraisal firms, local real estate men, building contractors and architects, local insurance agents or insurance adjusters, superintendents, business managers, boards of education. While in specific instances it is

possible that any one of the foregoing agencies could make a competent appraisal, there seems to be a general agreement that in the main, and in general, some are likely to be more proficient than others, because of experience, if for no other reason.[1]

The appraisal firm is usually thought of as providing the most reliable appraisals of buildings and equipment. Their fees are sometimes higher than other appraisal agents, but assuming that their appraisal is an accurate reflection of school district building and equipment values, their employment may represent a very real economy. Appraisal of property is a highly technical function involving special knowledge of the principles of property valuation and depreciation, and an understanding of labor and materials costs. Whoever is assigned the appraisal responsibility by the board of education, the board must be thoroughly satisfied as to his competency in the foregoing technical areas.

Smith was skeptical of appraisals by real estate men and contractors, stating that: "This method is usually unsatisfactory because their decision, as to the value of the property, is largely a matter of judgment and cannot always be substantiated by facts."[2] He suggested either appraisal firms or older and well-established fire insurance

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[1]Smith, Harvey. Economy in Public School Insurance. Thesis Contributions to Education, No. 428. Teachers College, Columbia University, 1930. New York, N. Y. p. 76.

[2]Ibid. pp. 76-77.

companies as the best sources for the establishment of accurate insurable values. He noted that it is customary for the aforementioned insurance companies to provide this service without charge to the district.

Melchior's study[1] in New York State (1925) revealed that only a small minority (3.2 per cent) of the school districts were having appraisals made by appraisal firms. Sixty-six per cent of the appraisals were made by the school authorities themselves, and in 15 per cent of the cases reported, the insurance companies were providing the service.

About a quarter of a century after Melchior's study, Upton[2] reported that in a sampling of 104 school districts from all over the United States slightly less than 20 per cent were using the services of appraisal firms, with an equal number employing the services of appraisers supplied by insurance companies. Approximately 16 per cent were using the services of a committee composed of some combination of architects, engineers, contractors and/or realtors. The greatest proportion, approximately 40 per cent of the districts had assigned the appraisal task to members of the school district staff.

Upton[3] noted a tendency on the part of the larger city districts to make their own appraisals, which seemed logical since "most such city school districts carry technical experts capable of such work

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[1]Melchior, William T. Insuring Public School Property. Teachers' College. Contributions to Education, No. 168. Columbia University. New York: 1925. p. 69.

[2]Upton, Ronald H. A Study of Fire-Insurance Cost and Practices in City School Districts. Unpublished Ed. D. Dissertation. University of Southern California. Los Angeles: 1947. p. 19.

[3]Ibid. p. 19.

on their regular staff." Of the 20 cities of more than 100,000 population, 16 assigned the appraisal responsibility to members of their own staffs. These larger cities are also much more likely to have complete cost data on their buildings and equipment.

Almost half of the 59 cities between 30,000 and 100,000 population in Upton's sample carried on their own appraisal program. The remaining 34 cities were evenly divided in their appraisal assignments between appraisal firms and insurance company appraisers.

In only three of the 30,000 population was the appraisal made by the school staff, in 9 by appraisal firms, 7 by a committee of architects, contractors, realtors, and engineers, and in 6 by an insurance company employee.

In Oregon, only 34 of 396 reporting districts employ the services of an insurance appraisal firm (Table III). One hundred and four reported that insurance appraisers do the school district appraising. Forty-six districts report that the superintendent of schools does the appraising. The great majority of Oregon school districts, however, (184 districts) indicate that the appraisal function is discharged by the local board of education, usually without outside assistance.

The employment of an appraisal firm is most common among the first class districts of the state. Almost one-fifth of these districts report such appraisals, compared with only 10 per cent of the second class districts and .6 per cent of the third class districts.

TABLE III

INDIVIDUALS OR GROUPS MAKING INSURANCE APPRAISALS
FOR OREGON SCHOOL DISTRICTS, 1953-54

	Persons Making Appraisal									
	Appraisal Firm		Insurance Appraiser		Superintendent		Other		No Answer	
Districts	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
1	2	3	4	5	6	7	8	9	10	11
First Class	16	18.0	20	22	22	25	22	25	8	9.0
Second Class	17	10.0	40	25	21	13	78	50	1	.6
Third Class	1	.6	44	29	3	2	84	56	19	12.0
Total	34	9	104	26	46	12	184	46	28	7

Frequency of Appraisals

Ideally, the appraisal of property would be kept up to date and current on the basis of a continuing inventory. Since this is not practicable in many school districts, the adjustment of the appraisal annually is next best.

Oregon school districts show a wide variation in the frequency with which they revise their appraisals. Seven first class districts (8 per cent of those responding) report a continuing or perpetual appraisal, while 43 per cent of the first class districts, 39 per cent of the second class districts, and 27 per cent of the third class districts reporting in this survey indicate that they revise their appraisals annually (Table IV). An additional 19 per cent of the first class districts, 28 per cent of the second class districts, and 9 per cent of the third class districts report an adjustment of appraisals only every two years. If the districts reporting adjustments only every three and every five years are lumped together, it will be observed that 21 per cent of the first class, 20 per cent of the second class, and 20 per cent of the third class districts are in this category.

With yearly increases in facilities in so many districts and with the decline in the value of the dollar, and hence, the increase in replacement values of existing buildings and equipment, it is difficult to see how school districts can maintain any semblance of an accurate appraisal where they make no more frequent readjustments than many of the Oregon school districts do.

TABLE IV

FREQUENCY WITH WHICH OREGON SCHOOL DISTRICTS REVISE APPRAISAL VALUES FOR FIRE INSURANCE PURPOSES

District	Each Year		Two Years		Three Years		Five Years		Other		No Answer
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	
1	2	3	4	5	6	7	8	9	10	11	12
First Class	38	43	17	19	15	17	4	4	13	15	1
Second Class	61	39	45	18	20	12	12	8	8	5	11
Third Class	41	27	14	9	13	9	17	11	13	9	53

Selecting Insurance Companies and Agents

The problem of selecting insurance companies has presented a complex problem to many school districts. Reeder briefly describes the problem as follows:

> Often the placing of insurance is a vexatious problem for the typical community has several insurance agencies and each agency is naturally desirous of securing the school business. School officials have two problems in this connection. The first is to see that insurance is placed only with reliable companies. The second is to apportion the insurance to the several companies on an equal basis or in a proportion to the amount of taxes which the agent pays.[1]

Linn and Joyner makes the following recommendations:

> If fair play in one business transaction implies the same treatment in others, then a just and equitable plan for dividing the school insurance should pay dividends in the form of good will.
>
> It is, therefore, recommended that some equitable distribution plan be established by every school district. Local insurance people should be encouraged to participate in the formulation of the procedures. In this manner, the advantages of the allocation method become known and the insurance agents themselves support the plan.[2]

Each district presents a different situation and a plan which may promote good public relations and fill the needs of one school district may not work in another. Since so many local factors enter into an

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[1]Reeder, Ward G. Public School Administration. New York: The Macmillan Company, 1941. p.

[2]Linn, H. H. and Joyner, S. C. Op. cit. p. 70.

equitable distribution of insurance, it is considered good practice to consult the local insurance agents' association for suggestions.

In considering the problem of selection of insurance companies, the Committee on Municipal Insurance of the League of California Cities has suggested that a systematic approach to selection involves the following steps: (1) gathering of data regarding local agents and brokers, (2) establishment of eligibility requirements, (3) determination of the amount of insurance to be given each agent.

Data Concerning Local Agents and Brokers

These data can best be secured by means of questionnaires or applications answered and certified to by the agent on a form furnished by the school district. This application should include information concerning whether the agent operates an office or not, the agency's yearly volume of business in general, the amount of fire insurance premiums collected, the number of years the agency has been in business, the companies for which the agency is a policy-writing and -signing agency, the number of employees devoting full time to insurance, and the real and personal property taxes paid. Other information may be added if desired by the board of education.

Rating of Insurance Companies

State laws provide for the licensing of insurance companies. It may be assumed, therefore, that any insurance company doing business in the state meets the minimum qualifications established by the law.

There is available to the local school district, however, additional information concerning the relative soundness of the various insurance companies. The simplest rating system and perhaps the most widely used in public school systems is the Best Insurance Guide[1] (Table V), which gives the financial and management rating of each company licensed to sell insurance in the United States.

A financial rating of AA is a popularly accepted minimum standard used by many schools.[2] This rating indicates that the insurance company is rated excellent on the following factors: (1) good underwriting, (2) economy of management, (3) net resources adequate to absorb unusual shocks, (4) adequate net resources, and (5) sound investments.

Mutual Insurance Companies

Interviews with school officials in Oregon concerning their insurance problems and practices indicated that there is considerable misunderstanding as to whether school districts may purchase insurance from mutual companies. The impression prevails that premium charges of mutual companies cannot be definite and fixed, and that the policy holder may therefore become liable for the payment of additional assessments.

The foregoing assumption, coupled with an Oregon Supreme Court ruling of November 22, 1909, has led some to think that school districts

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[1] Best's Insurance Guide with Key Ratings. New York: Alfred M. Best Co. 1950. Preface. p. 15.

[2] Linn, H. H. and Joyner, S. C. Op. cit. p. 70.

TABLE V

GENERAL POLICY HOLDERS RATINGS OF STOCK COMPANIES[2]

Financial Ratings		Number of Companies According to Ratings							
		A+	A*	A	B+	B	C+	C	D
AAAAA	$25,000,000 or more	27	..	1	..	..	..	..	..
AAAA+	20,000,000 to $25,000,000	6	..	..	..	..	..	..	..
AAAA	15,000,000 to 20,000,000	14	..	..	..	..	..	..	..
AAA+	12,500,000 to 15,000,000	12	..	..	..	..	..	..	..
AAA	10,000,000 to 12,500,000	9	..	..	..	..	..	..	..
AA+	7,500,000 to 10,000,000	13	..	1	..	..	..	..	..
AA	5,000,000 to 7,500,000	29	..	1	..	..	..	..	..
BBBB+	3,750,000 to 5,000,000	24	..	1	..	..	..	..	..
BBBB	2,500,000 to 3,750,000	48	..	6	..	..	..	..	..
BBB+	1,500,000 to 2,500,000	32	..	5	..	..	..	..	..
BBB	1,000,000 to 1,500,000	23	..	3	2	..	..	..	..
BB+	750,000 to 1,000,000	4	..	3	1	..	..	..	..
BB	500,000 to 750,000	10	..	7	..	..	..	..	..
CCC	250,000 to 500,000	2	3	8	..	..	..	..	..
CC	250,000 or less	..	..	..	..	..	..	..	..
	Total	253	3	37	3	..	..	..	..

Note: A+ --Excellent
A* ---Rated A except for size
A----Excellent
B+--Very Good
B --Good
C+--Fairly Good
C--Fair
D--Secure Confidential Report

From these a city may set up its own minimum standards. Generally, an A:BBB ("A" represents the general policy holders rating and "BBB" the financial rating) financial rating is the lowest acceptable minimum used by most cities.

are prohibited from purchasing mutual insurance. The Supreme Court ruled in the case of Johnson v. School District No. 1 of Multnomah County[1] that a school district could not lawfully insure its property with the Northwestern Mutual Fire Insurance Company on the grounds that a municipal corporation cannot use tax money to become a member of a joint-stock company.

However, the Oregon attorney-general ruled on June 9, 1942, that school districts could purchase insurance from mutual companies provided that the policies are non-assessable[3] and provided that certain other provisions of the law are met, as follows:

> Counties, school districts, and other municipalities may obtain necessary insurance in inter-insurance exchanges, provided policies are non-assessable and conditions of section 101-1304, O. C. L. A. as amended by Chapter 268, Oregon Laws, 1941, related to surplus and deposits are complied with. (109 pp. 644-5)[2]

To ascertain the extent to which Oregon school districts are purchasing fire insurance from mutual companies, the writer tabulated from school district annual reports (on file in Salem) the amount of insurance written by each company referred to in these reports. Approximately two-thirds of the school districts listed in their annual reports the

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[1]Annotation 142 ALR 110 -- Oregon Revised Statutes.

[2]Oregon Laws, Chapter 268, Section 101-1304. 1941. pp. 644-5.

[3]To issue non-assessable policies, mutual insurance companies in Oregon must have in excess of $100,000 in reserves and must be certified for this purpose by the Oregon Insurance Commissioner. (Insurance Laws of the State of Oregon. 1954. Chapter 744.310. Section 420

insurance companies with which they were doing business. From this sampling, it would appear that approximately 35 per cent of the school fire insurance in Oregon was purchased from mutual companies in 1952-53. The largest school district in the state reported that it purchased 50 per cent of its fire insurance from mutual companies and many school districts in Oregon indicated that they purchase all of their insurance from these companies.

It is not the purpose of the foregoing discussion to indicate that mutual companies are more or less desirable than stock companies. The purpose is, rather, to point up the fact that it is lawful to purchase non-assessable policies from mutual companies and that many of the Oregon school districts are doing so, although some apparently still labor under the delusion that it is unlawful.

Eligibility Requirements for Insurance Companies

Because there is considerable competition for the local school district's insurance business, the board is often faced with difficult questions concerning the way in which its insurance business should be allocated. As in the settling of any other difficult issue where pressures are exerted by various persons upon the board, it is helpful in this case for the board to develop some clear cut statements concerning the minimum requirements to be met by those seeking the board's insurance business. Such a statement, if developed with the advice and assistance of the agents' association, if there is one in the community, will do much to fortify the board against the possibility of its granting

insurance business on bases other than the best interests of the school district. Such a statement will do much to promote public understanding and good will as well.

Illustrative of some of the minimum requirements which Oregon boards have established are the following:

1. Each agency must have been engaged continuously in the fire insurance business within the school district for at least three years immediately prior to the application for insurance.
2. A separate office must be maintained separate from a residence, with a telephone listed in the name of the agent at the office address.
3. The agent must have a yearly volume of fire and general premiums of not less than $_____.
4. An eligible agent must pay not less than $_____ in local taxes.
5. The agent must represent a company with a rating of not less than BBB in Best's Insurance Guide.
6. The agent must be a member of the local insurance agency.
7. The company must have a local representative.
8. The company must have a reputation for prompt payment of taxes.

Current practices of Oregon school districts with respect to the selection of insurance companies as recorded from data tabulated from the questionnaire indicate that most school districts of the second and third class have no written policies with respect to this matter of selection of insurance agents, or the allocation of insurance.

TABLE VI

PRACTICES OF OREGON SCHOOL DISTRICTS REGARDING WRITTEN POLICIES GOVERNING THEIR INSURANCE PROGRAMS

Districts	Number of Districts Reporting	Number of Districts With Written Policy		Number of Districts With No Written Policy	
		No.	Per Cent	No.	Per Cent
1	2	3		4	
First Class	88	23	26	65	73
Second Class	157	6	3	151	96
Third Class	151	3	2	148	98

TABLE VII

FACTORS INFLUENCING OREGON SCHOOL DISTRICTS IN THE SELECTION OF INSURANCE COMPANIES AND AGENTS

District	Number Reporting	Services Offered		Local Reputation of Insurance Company		Personal Acquaintance With Agent		Desire to Give Business To Local Taxpayer		Company's Reputation		Other	No Answer
		No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent		
1	1	2		3		4		5		6		7	8
First Class	88	44	50	30	34	7	8	28	31	24	27	12	2
Second Class	157	46	29	33	21	20	13	57	36	35	22	5	1
Third Class	151	55	36	56	37	29	19	52	34	64	43	15	15

Of the 157 second class districts reporting (Table VI), only six (3 per cent) indicated that they had such a written policy and only three third class districts (2 per cent) reported one. However, among the 88 first class districts reporting, 23 (26 per cent) reported operating under a written policy covering these matters.

In considering what factors are most influential with school boards in the allocation of the school's insurance business, the boards were asked to check those among the following factors which were significant in the choice of insurance companies: services offered by the company, local reputation of the insurance company, personal acquaintance with the agent, desire to give business to local taxpayer, home company's reputation. Their responses are indicated in Table VII. It appears that a larger percentage of the first class districts (50 per cent) consider services offered as being important, than do second and third class districts (29 per cent and 36 per cent respectively). Personal acquaintance with the agent seemed to loom larger as a factor in the third class districts (mentioned by 19 per cent of the districts) than in the second class districts (13 per cent) or in the first class districts (only 8 per cent). The home company's reputation was reported as important by a larger portion of the third class districts (43 per cent) than second class districts (22 per cent or first class districts (27 per cent).

Approximately one-third of all school districts reporting (31 per cent, 36 per cent and 34 per cent respectively of the first, second, and third class districts) indicated that the board considered it important that the business be given to local, taxpaying residents.

Determination of Amount to be Given Each Agent

The plan for determining the amount of insurance to be allotted to each agent must take account of the school district's need for adequate insurance coverage at as economical a rate as possible, commensurate with the kind of service the district desires. Desirably, the goodwill of the agents and their local association should also be considered.

It is well to anticipate that any distribution plan will meet with some problems, and there should be no hesitancy about changing the procedures or requirements particularly when the proposed modifications will improve the acceptability of the plan.

Term of Insurance

Rates are more favorable in insurance contracts as the term of the contract is lengthened. A three-year term rate on a school fire insurance policy is only two and one-half times the one-year rate. The five-year rate is only four times the annual premium, thus the five-year rate is a saving of about 4 per cent over the three-year rate. The savings possible through use of the longer term are readily seen by comparing the annual cost for insurance under each of the following three contracts. Assuming an annual premium of $100, 15 one-year contracts would cost $1,500. Five three-year contracts would cost $1,250--a saving of 16 2/3 per cent, and 3 five-year contracts will cost only $1,200, or a saving of 20 per cent in insurance premiums.

TABLE VIII

SAVINGS REALIZED FROM THREE- AND FIVE-YEAR INSURANCE CONTRACTS OVER 15-YEAR PERIOD (BASED ON $100 ONE-YEAR PREMIUM)

Term of Insurance Contract	Total Premium Cost	Cost Per Year	Per Cent Saving
1	2	3	4
15 One-Year Contracts	$1,500	$100.00	0
5 Three-Year Contracts	1,250	83.33	16 2/3
3 Five-Year Contracts	1,200	80.00	20

When these same savings are applied to the very large insurance programs carried by school districts in the state, it is clear why five-year policies are recommended for all school districts with one-fifth of the coverage expiring on a common expiration date each year. In this manner, the yearly budgets for fire insurance will be the same.

The majority of Oregon school districts are purchasing their fire insurance on the more economical five-year plan (Table IX). Of the 396 districts reporting, 54 per cent purchase fire insurance on a five-year plan, 20 per cent on a three-year plan and 6 per cent on a one-year plan.

When it is considered that schools are in business for an indefinite length of time and long range planning is necessary to maintain an adequate school plant, it is surprising to find that 3 per cent of the first class districts reporting indicate that they purchase their

TABLE IX

TERMS OF INSURANCE POLICIES IN 396
OREGON SCHOOL DISTRICTS, 1953-54

District	Number Reporting	Policy Period Reported						No Answer
		1 year		3 year		5 year		
		No.	Per Cent	No.	Per Cent	No.	Per Cent	
	1	2		3		4		5
First Class	88	3	3	14	16	69	78	0
Second Class	157	8	5	12	8	63	40	0
Third Class	151	13	9	53	35	83	55	7
Total	396	24	6	79	20	215	54	

insurance on one-year policies, while 16 per cent indicate that they use the three-year policy.

The 14 first-class districts (Table IX) in Oregon which carry three-year policies have more than $10,000,000 worth of buildings and equipment with an annual fire insurance premium cost of $50,000. This coverage for a five-year period could be purchased at a savings of $500 annually if coverage were in terms of five-year term contracts instead of three-year term contracts. This saving is not impressive compared to school budgets, but it is doubtful that many school districts in this state would like to throw away one per cent of any other part of the school budget.

Endorsements

Extended Coverage As it has become accepted practice to cover other perils than fire by endorsements attached to the fire insurance policy, certain popular coverages have been grouped in one form for attachment to building and content policies. This Extended Coverage Endorsement, discussed briefly in Chapter II, is a uniform endorsement on the Pacific Coast.[1]

The foregoing endorsement covers seven hazards: windstorm, hail, riot and civil commotion, explosion, aircraft and motor vehicle damage, and smoke.

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[1]Linn, H. H. and Joyner, S. C. Op. cit. p. 55.

It is difficult to set any standard in Oregon as to whether it is a better practice for school districts to carry extended coverage on all of their buildings. There is no information available concerning school losses from the perils covered by the extended coverage endorsement. However, from the losses listed in the Forty-sixth Annual Report of the Insurance Commissioner, it is shown that during 1953 insurance companies in Oregon collected $1,832,708 in premiums for extended coverage on all risks (including those other than school); in the same length of time these same companies paid a total of $791,330 on the extended coverage risk. This loss amounted to 43 per cent of the premiums received. Upon the basis of the cost-loss ratio for this one year, it would appear to be a good investment to advise all school districts to take this coverage.

Data from the cooperating school districts indicated that the majority of Oregon school districts do carry extended coverage. The responses of the 396 school districts (Table X) denoted that 78 per cent (69) of the first class districts, 77 per cent (121) of the second class districts, and 50 per cent (76) of the districts of the third class protect against the perils of windstorm, hail, explosion, riot attending a strike, civil commotion, aircraft, vehicles, and smoke.

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[1]The Forty-sixth Annual Report of the Insurance Commissioner. Taylor, Robert. 1954. For the year 1953. Salem, Oregon.

TABLE X

OREGON SCHOOL DISTRICTS
CARRYING EXTENDED COVERAGE IN 1952-53

District	Number Reporting	Number Carrying Extended Coverage	Per Cent	Number Not Carrying Extended Coverage	Per Cent	No Answer
	1	2		3		4
First Class	88	69	78	14	16	5
Second Class	157	121	77	31	20	5
Third Class	151	76	50	43	28	32

Coinsurance As was indicated in Chapter II of this study, school districts will usually be able to increase their fire insurance coverage by including as an endorsement to the contract a coinsurance clause without additional premium costs. The coinsurance clause is an agreement between the insured and the insurance company that the insured will maintain insurance on the insured property equal to a certain percentage of its insurable value. As long as the insured carries sufficient insurance to comply with the coinsurance clause, he will be entitled to collect the entire amount of any loss up to the face value of the policy. If the insured fails to carry the agreed percentage of insurable value, he may collect in the event of loss, only that portion of the loss which the amount of insurance carried bears to the amount of insurance he should have carried under the coinsurance agreement. The amount collectible under the coinsurance clause is determined by the following formula as was pointed out in Chapter II.

$$\frac{\text{Amount of insurance carried}}{\text{Amount of insurance required}} \times \text{Amount of Loss} = \text{Amount collectible up to the face value of the policy.}$$

The results of the coinsurance are illustrated by Robert M. Moulton in the three examples shown below:

> In the first example the property owner has purchased the amount of insurance agreed upon under a 90 per cent co-insurance clause and has sustained a partial loss. In the second, the property owner has purchased only two-thirds the amount of insurance agreed upon under the 90 per cent co-insurance clause but has sustained a total loss.

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[1] Insurance Practices of Oregon Cities, Bureau of Municipal Research and Services in Cooperation with the League of Oregon Cities. Bulletin No. 94. Oct. 1954. pp. 3-4. Compiled by Robert Moulton.

Operation of 90% Co-Insurance

	Number 1	Number 2	Number 3
Actual cash value of property	$10,000	$10,000	$10,000
Amount of insurance required to be carried by the 90% co-insurance clause	9,000	9,000	9,000
Insurance actually carried	9,000	6,000	9,000
Loss sustained	3,000	3,000	10,000
Amount collectible from insurance company	3,000	2,000	9,000
Amount paid for by insured	nil	1,000	1,000

Insurance companies developed coinsurance plans to combat a tendency of building owners to insure their buildings for less than their full insurable value. Reduced rates are offered owners who insure their property to near its full value. Premium rate reductions under a coinsurance clause are available for all types of construction in Oregon cities having a fire protection classification of 9 or 10. The premium rate reductions available in Oregon under a coinsurance clause for different types of construction and for various classes of fire protection as of September, 1954, are shown in the table on the following page.

Percentage Credits for Use of Co-Insurance Clause

Type of Construction	% of Co-Insurance Clause	Fire Protection Classification of City									
		1, 2, 3, 4		5, 6		7, 8		9		10	
		Building	Contents	Building	Contents	Building	Contents	Building	Contents	Building	Contents
Fire Resistive	100%	70%	40%	65%	35%	63%	30%	61%	0%	61%	0%
	90	67	35	62	30	60	25	58	0	58	0
	80	64	30	60	25	56	20	54	0	54	0
	70	59	25	55	20	50	15	48	0	48	0
	60	53	15	49	10	45	5	40	0	40	0
Masonry	100	49	35	45	30	40	25	20	0	0	0
	90	45	30	40	25	35	20	15	0	0	0
	80	40	25	35	20	30	15	10	0	0	0
	70	35	20	30	15	25	10	5	0	0	0
	60	30	10	20	5	15	0	0	0	0	0
Frame and Metal Clad	100	25	25	20	20	15	15	0	0	0	0
	90	20	20	15	15	10	10	0	0	0	0
	80	15	15	10	10	5	5	0	0	0	0
	70	10	5	5	0	0	0	0	0	0	0

Additional reduction for one or two story masonry buildings:

For masonry buildings of one or two stories in height, increase the reductions as given for buildings or contents in cities having a fire protection classification from 1-8 inclusive 5 points of percentage.

To illustrate the premium reductions available by the use of coinsurance, the following examples are given for a $100,000 one-story building located in a city with a fire protection classification of four. The examples assume that a 90% coinsurance clause is agreed upon and that, therefore, a $90,000 insurance policy is written.

If of Frame Construction	Estimated Rate	Premium
Without coinsurance	$1.00	$900
With coinsurance (20% credit)	.80	720
If of Masonry Construction		
Without coinsurance	.60	540
With coinsurance (45% & 5% credit)	.30	270

An analysis of the data from the 346 Oregon districts cooperating in this study (Table XI) reveals that 69 per cent (61) of the first class districts, 40 per cent of the second class (62), and only 20 per cent (30) of the third class districts use the coinsurance endorsement. However, the interviews revealed the fact that many school people actually do not understand the full significance of the agreement made in the coinsurance endorsement. A review of the school audits with reference to fire insurance revealed that many school districts are carrying a coinsurance clause but have their buildings and equipment insured for much less than the agreement requires. On the other hand, there are some school districts which are carrying the 90 per cent

TABLE XI

SCHOOL DISTRICTS CARRYING COINSURANCE, 1953

District	Number Reporting	Number of Districts Carrying Coinsurance										No. Districts Not Carrying Coinsurance	
		50%		70%		80%		90%		100%			
		No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
	1	2		3		4		5		6		7	
First Class	88	1	1.0	1	1.0			40	45	19	22	17	19
Second Class	157	1	.6	1	.6	2	1.0	49	31	9	5	61	39
Third Class	151	1	.7	2	1.0			18	11	9	6	73	48

coinsurance policy and at the same time have purchased far in excess of the total declared value of both buildings and equipment.

The insurance policy and all endorsements with their full significance should be explained to the school board by the insurance broker and the administrator of the insurance program. To secure the broadest coverage and provide an economical fire insurance program, a thorough knowledge of insurance practices is essential.

Summary

Information concerning school district policies and practices in the management of the public school fire insurance program was presented in this chapter. These practices were confined to the following major areas:

1. Provision for administrative control of the insurance program
2. Provisions for maintaining an adequate appraisal of school property and equipment
3. Provision for selection of insurance companies and agents
4. Provision for adapting the insurance program to the needs of the district

The defining of the role of the board of education and its agents is important to the successful management of the school fire insurance program. The board of education should allocate the responsibility of the school fire insurance program to one person (the superintendent or business manager), who would be responsible for the preparation of

administrative proposals concerning the insurance program for submission to the board for consideration. The executive should then be held responsible for the administration of the program.

In Oregon, it was found that in most first class districts, the responsibility of the insurance program has been placed in the hands of the superintendent of schools. In the smaller districts, the administration of the insurance program is handled in various ways. In some instances, the board as a whole establishes the policies and administers the program. In many instances, the board seeks the assistance of a local insurance agent to help plan the school district insurance program. In some cases, the insurance advisor to the board is given the major share of the school district's insurance business. The major decisions as to the types and amounts of insurance to be purchased and the form of coverage are matters on which the board of education should make the final decision. In some of the smaller school districts where the insurance program has been the responsibility of the clerk and board, it was found that the insurance program was poorly planned and the buildings were under-insured or over-insured. There are evidences that many school districts have never established any consistent policies which would maintain a current, up-to-date appraisal and account of the school district's property.

Data from the 396 school districts cooperating in this study indicated that there is considerable variation in interpretation of insurable value. Approximately 42 per cent of the reporting districts disclosed that insurable value is determined by the replacement value

less exclusions and depreciation, 22 per cent reported the use of original cost less depreciation, and 9 per cent reported the use of original cost. The most accurate method of estimating up-to-date appraisals should be that of replacement value less exclusions and depreciation.

The estimate of insurable value must rest upon an adequate property accounting system which will maintain an accurate record of all property acquisitions by the school district, their location, initial cost and probable rate of depreciation. In the event of fire loss, the insurance adjustment covering contents of buildings rests upon an up-to-date inventory, showing the quantity of all articles.

Insurance rates on school buildings are usually lower than rates for contents, and many pieces of permanently fixed equipment that might ordinarily be considered under the head of "contents" may be included as part of the building and thus be insured at lower rates.

It was found that Oregon school districts use a variety of agents in the appraisal of property, some of the more commonly used being: appraisal firms, local real estate men, building contractors and architects, local insurance agents or insurance adjusters, superintendents, business managers, and boards of education.

The appraisal firm is usually thought of as providing the most reliable appraisals of buildings and equipment. Their fees are usually higher than other appraisal agents. Assuming, however, that their appraisal is an accurate reflection of school district building and equipment values, their employment may be a very real economy.

In Oregon, only 34 of 396 reporting districts employ the services of an insurance appraisal firm, 140 reported that insurance appraisers do the school district appraising, 46 reported that the superintendent of schools does the appraising, and 184 districts indicated that the appraisal is made by the local school board, usually with outside assistance.

The frequency with which appraisals are made varies widely. Seven first class districts report a continuing appraisal; 43 per cent of the first class districts, 39 per cent of the second class districts, and 27 per cent of the third class districts reporting indicate that they revise their appraisals annually. An additional 19 per cent of the first class districts, 28 per cent of the second class districts, and 9 per cent of the third class districts report an adjustment of appraisals only every two years. Still others revise their appraisals every three or five years.

The problem of selecting insurance companies and agents was summarized under the three following steps: (1) gathering of data regarding local agents and brokers, (2) establishment of eligibility requirements, (3) determination of amount of insurance to be given to each agent.

The data presented show that most school districts of the second and third class have no written policies with respect to eligibility requirements for insurance companies, and only 23 of the first class districts reporting reported operating under a written policy.

Study of the terms of the insurance contracts indicated that 20 per cent of fire insurance premiums could be saved by purchasing insurance on the basis of five-year policies instead of one-year policies.

The endorsements to the Oregon Standard Fire Insurance Policy most commonly used in Oregon public schools reporting in this study include: extended coverage, which is used by approximately 75 per cent of the school districts; and coinsurance, used by 69 per cent of the first class districts, 40 per cent of the second class, and 20 per cent of the third class districts.

The insurance policy and all endorsements with their full significance should be thoroughly understood by both the administrator of the insurance program and the board of education.

CHAPTER IV

FIRE INSURANCE COSTS

The fixing of insurance rates at a level which serves equally well the interests of the insurance company and of those it insures, is a difficult task. If the rates are too low, so that the indemnities which the insurance company must pay take too large a percentage of the total premiums received by the company, it may become insolvent. On the other hand, if the rates are set too high in comparison with the losses suffered by the insured, the insured pays too much for his insurance.

There is also the problem of fixing variable rates in accordance with differing risks, in such a way that each class of risk pays its fair share for the protection it gets against great or little risk, as the case may be. Putting it another way, it is essential to the success of the insurance business that costs be assessed equitably among policy holders so that each pays according to the risk and expense his class of insurance entails.

Since the fixing of insurance rates is of such vital concern to the well-being of insurance companies, in 30 states they have banded together to form state "rating bureaus," one of whose primary functions it is to establish equitable rates and to enforce their use by member

companies. Five sectional rating bureaus[1] control the rate making in the other 18 states.

There is often concern on the part of particular classes of policy holders as to whether the rates for their insurance are not too high in the light of the risks involved. As was noted in Chapter I of this study, this has long been a concern of school boards, both nationwide and in particular states. Most of the studies of school fire insurance have considered the ratio of the premiums paid for insurance by the schools to the losses for which the districts have been reimbursed by the insurance companies as one measure of the equitableness of premium rates. Not infrequently these studies have shown that the cost-loss ratio was quite low, raising the question as to whether the premiums paid by school boards were not too high.

It is to these areas of insurance costs that this chapter turns. In particular, it will be devoted to a consideration of: (1) the establishment of fire insurance rates in Oregon, (2) insurance companies' costs of operation, and (3) public school fire insurance cost-loss ratios.

Establishment of Insurance Rates

The two most important factors affecting fire insurance rates in Oregon, according to the Oregon Insurance Rating Bureau, are (1) the class of property to be insured, and (2) the insurance class of the city's fire protection facilities. Of these two, the first is the more important.

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[1]The New England Rating Bureau, the New York Fire Insurance Rating Bureau, the Southeastern Underwriters' Association, the San Francisco Rating Bureau, and the Baltimore Rating Bureau.

Classes of Property to be Insured

Buildings differ greatly in the extent of the risk they represent in terms of possible fire damage. Rating bureaus endeavor to take into account the characteristics of various type buildings in establishing classes of risk according to type of building, so that differential rates may be applied to the various classes in accordance with the risk each class of building represents. The risk any given building represents is affected by structural features of the building, the height of the building, the extent of the private protection provided by fire extinguishers, automatic sprinklers, and fire alarms, the type of heating unit the building has, and the extent and the nature of the building's exposure to fire hazards in adjacent buildings.[1]

The effects of adjacent buildings on fire risk is referred to by the Oregon State Fire Marshall as follows:

> The fire protection facilities within the building and in the area in which it is located, and the condition of surrounding buildings in the area are among the factors which affect the insurance rates for buildings in any structural classification. These factors do not stand alone but are interrelated, making it impossible to determine insurance rates on any particular property without having the evaluation of all of the factors. For example, a fire in a one-story building is more easily extinguished than a fire in a building having two or more stories, but the rate variation for buildings of different height is less in cities having lower fire protection classification because such cities have greater ability to cope with fire in multi-story buildings.[2]

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[1]Bureau of Municipal Research and Service. Fire Experiences and Fire Protection Rating of Oregon Cities. University of Oregon. Bulletin No. 70. May, 1948. p. 23.

[2]The Forty-sixth Annual Report of the Insurance Commissioner. Taylor, Robert. For the year 1953. Salem, Oregon.

For the purpose of rate making, the Oregon Insurance Rating Bureau has, on the basis of the foregoing factors, established four major classes of buildings as follows:

Class A: A building with walls, floors and roof of masonry (including concrete), with all loads supported by an independent steel or reinforced concrete frame or by masonry walls, and with all interior structural elements of fire-resistive or incombustible materials.

Class B: A building with all exterior walls constructed of brick, stone, concrete, or solid cement blocks, with an approved roof. (An approved roof is a roof having an exposed surface entirely of metal, slate, tile, tar and gravel, or composition roofing materials, except tar paper, and with exterior masonry walls extending above the roof). A building with exterior walls not extending above the roof but in all other respects conforming to the Class B requirements, may be treated as such if it is detached 50 feet or more from all Class B, C, or D buildings.

Class C: A building generally conforming to the requirements of Class B, but which varies therefrom in any one or more of the following particulars:

1. In having a front or rear wall of non-masonry construction.
2. In having one or more exterior walls of hollow tile, hollow cement block or plaster block. (Hollow pumice block is generally considered satisfactory, but has not been officially recognized by the Rating Bureau.)

3. In having exterior walls not rising above the roof unless the building is detached 50 feet or more from all Class B, C, or D buildings.
4. In having a mansard or unapproved roof. Unless the entire roof (other than the roof's awnings, bay windows, cornice, open porches, and outside stairs) is of approved material, the roof shall be classed as unapproved. (An unapproved roof is one having wooden shingles, shakes, boards, tar paper, or materials other than those approved.)
5. In having a frame structure on the roof, except skylights, cornices or balustrades.

Class D: A building with exterior walls of wood, metal on wood or steel frame, stucco or masonry veneer over wood, or any other type of nonmasonry construction, or a building having part masonry walls but not up to the requirements for Class B or C buildings. (Walls of masonry not over 4 inches in thickness shall be considered in the same manner as veneer whether constructed over wood or not.)

Insurance Class of the Municipality's Fire Protection Facilities

The second major factor affecting fire insurance rates is the insurance class of the municipality's fire protection facilities as it is defined by the Oregon Insurance Rating Bureau. This rating takes into account the hazards, structural and climatic conditions, and the extent and the nature of the municipality's fire defenses, for these will affect the extent of the protection buildings may be given in the event of fire.

In establishing these ratings the National Board of Fire Underwriters' Standard Schedule for Grading Cities and Towns of the United States with Reference to Their Fire Defenses and Physical Conditions[1] serves as a guide. A municipality's rating is determined by the extent to which it deviates from the standards established in the schedule. The sum of the maximum points of deficiency totals 5,000 divided in accordance with the relative value of features shown in Tables XII and XIII.

The grading classification of cities and towns falls into one of the following classes when the total points of deficiency have been computed:

Class	Points of Deficiency
One	0 to 500
Two	501 to 1,000
Three	1,001 to 1,500
Four	1,501 to 2,000
Five	2,001 to 2,500
Six	2,501 to 3,000
Seven	3,001 to 3,500
Eight	3,501 to 4,000
Nine	4,001 to 4,500
Ten	More than 4,500
or without a water supply and having a fire department grading tenth class.	

It should be apparent from the foregoing discussion of rate fixing that by attention to those factors which affect fire insurance rates, school boards may improve their property as an insurance risk, and thus

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[1]Department of State Fire Marshall. Annual Report for the Calendar Year 1953. Published 1954 by Robert B. Taylor, State Fire Marshall, Salem, Oregon. p. 13.

TABLE XII

TOTAL POSSIBLE POINTS OF DEFICIENCY AND RELATIVE[1] VALUE OF ITEMS IN GRADING SCHEDULE

Factors Effecting the City Fire Protection Class	Relative Values	Per Cent of Total
1	2	3
1. Water supply	1,700	34
2. Fire department	1,500	30
3. Fire alarms	550	11
4. Police	50	1
5. Building laws	200	4
6. Hazards	300	6
7. Structural conditions	700	14
8. Climate conditions	---	--
9. Divergence between first 2 items	---	--
Total	5,000	100

Points of deficiency which determine the grade of each of the major items of fire defense in the grading schedule follow:

TABLE XIII

POINTS OF DEFICIENCY WHICH DETERMINE THE GRADE FOR EACH OF THE MAJOR ITEMS IN THE GRADED SCHEDULE

Grade	Water Supply	Fire Department	Fire Alarm	Police	Building Laws	Ordinances	Conditions
1	2	3	4	5	6	7	8
1.	0-170	0-150	0-55	0-5	0-20	0-30	0-70
2.	171-340	151-300	56-110	6-10	21-40	31-60	71-140
3.	341-510	301-450	111-165	11-15	41-60	61-90	141-210
4.	511-680	451-600	166-220	16-20	61-80	91-120	211-280
5.	681-850	601-750	221-275	21-25	81-100	121-150	281-350
6.	851-1020	751-900	276-330	26-30	101-120	151-180	351-420
7.	1021-1190	901-1050	331-385	31-35	121-140	181-210	421-490
8.	1191-1360	1051-1200	386-440	36-40	141-160	211-240	491-560
9.	1361-1530	1201-1350	441-495	41-45	161-180	241-270	561-630
10.	1531-1700	1351-1500	496-550	46-50	181-200	271-300	631-700

[1]Department of State Fire Marshall. Annual Report for the Calendar Year 1953. Published 1954 by Robert B. Taylor, State Fire Marshall, Salem, Oregon. p. 13.

reduce their insurance costs. A discussion of ways of reducing fire insurance costs through attention to structural details and through preventive maintenance and upkeep of the school plant will be found in Chapter VI.

Fire Insurance Rates and Costs of Operation

The rates established for fire insurance must be sufficiently high to provide for the current operating expenses of the insurance company, the indemnities to clients for fire losses, and a reasonable profit for stockholders (in stock insurance companies).

Operating Costs

Available data indicate that of recent years the current operating expense of fire insurance companies has been less than 50 per cent of the premiums collected by these companies. Best's Insurance Guide,[1] the most comprehensive and reliable of the insurance compendiums available, indicates that for the twenty-year period 1929-49 the ratio of current operating expenses for all stock insurance companies to premiums earned was 44 per cent (Table XIV). For the last six years of this period (1947-53) the ratio was less than 40 per cent. The highest ratio for any single year of the 23-year period was 48.7 per cent.

It may not be assumed from the foregoing that the portion of premiums received which was not needed to meet current operating expenses was therefore profit for the company, for indemnities to clients for fire losses and special reserve funds for unpredictable catastrophes causing

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[1] Best's Insurance Guide with Key Ratings. N. Y.: Alfred M. Best Co. 1950.

TABLE XIV

OPERATING RETURNS--STOCK FIRE COMPANIES

Year of Operation	Net Premiums Written	*Loss Ratio	**Expense Ratio	Combined Ratio
1	2	3	4	5
1929	$1,008,830,000	49.0%	44.1%	93.1%
1930	909,550,000	54.0	46.0	100.0
1931	795,295,000	52.5	46.9	99.4
1932	676,765,000	53.8	48.7	102.5
1933	614,600,000	44.0	47.9	91.9
1934	663,355,000	43.7	47.3	91.0
1935	685,670,000	40.4	47.9	88.3
1936	735,985,000	45.8	47.5	93.3
1937	802,845,000	45.9	46.4	92.3
1938	750,960,000	46.7	48.4	95.1
1939	799,835,000	46.8	47.6	94.4
1940	917,291,000	49.8	44.6	94.4
1941	1,051,526,000	53.3	42.3	95.6
1942	1,128,360,000	59.0	a39.7	a98.7
1943	1,043,835,000	52.1	42.3	94.4
1944	1,138,858,000	57.3	41.3	98.6
1945	1,226,025,000	58.1	41.5	99.6
1946	b1,640,500,000	58.2	40.5	98.7
1947	b2,034,808,000	58.5	39.2	97.7
1948	b2,246,917,000	50.5	38.9	89.4
1949	b2,463,217,213	44.7	38.4	83.1
1950	b3,137,529,000	55.5	37.5	87.6
1951	b3,758,796,000	60.2	36.9	97.1
1952	b4,410,590,000	58.4	36.0	94.4

* To earned premiums ** To written premiums

a Expense ratios since 1942 are before Federal income tax.

b Excludes premiums of $2,099,000 in 1946 $16,797,000 in 1947, $24,505,000 in 1948 and $20,566,680 in 1949 covering fire and allied lines written by stock casualty carriers.

excessive demands on the company must also be paid from the premiums received. The National Association of Insurance Commissioners has officially adopted standards with respect to the size of these special reserves as follows:

> ....The Subcommittee recommends that the 1921 Profit Formula be amended to provide a profit factor of six per cent for catastrophes, and that rates should not be subject to revisions unless actual profits exceed eight per cent and fall below four per cent.[1]

Cost-Loss Ratios

Provident clients of fire insurance companies are concerned with whether the insurance rates they are paying are higher than warranted by their fire losses. Their cost-loss ratios over a period of years compared with cost-loss ratios for all clients of the company have often been used as a basis for comparing relative rates.

Best's data for the 20-year period 1929-49 indicated that the cost-loss ratio for all clients of all stock insurance companies was 50 per cent. For the most recent three years for which data is available (1947-49) the cost loss-ratios were 58.5 per cent, 50.5 per cent, and 44.7 per cent respectively.

The foregoing ratios for all clients have given rise to the feeling on the part of students of public school fire insurance that public school districts may be paying too much for fire insurance .

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[1]Report of the Special Sub-Committee on Underwriting Profit or Loss of The Fire and Marine Committees, National Association of Insurance Commissioners. June 9, 1949. p. 12.

There have been a number of state and national studies which have sought to ascertain whether the fire insurance premiums paid by school districts were high compared with the nature of the risk school buildings represent, as indicated by the reimbursement to school districts, for fire losses referred to as the cost-loss ratio. They have concluded, almost without exception, that the insurance rates were higher than appeared to be warranted by the fire losses suffered.

The National Association of Public School Business Officials found that for the periods of 1921-30, 1931-37, and 1938-45, the average cost-loss ratios for a sampling of public school districts throughout the United States were 28.7 per cent, 26.9 per cent, and 31.9 per cent respectively.[1]

A New York study,[2] including data from 59 New York cities for the years 1920-25, reported an average cost-loss ratio of 24.25 per cent.

A study of 141 city school districts in the United States and Canada for 1938-45 indicated an average cost-loss ratio of 31.9 per cent[3] (Table XV).

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[1]National Association of Public School Business Officials, Committee on Insurance Research, Insurance Practices in City School Districts, Trenton New Jersey, 1932.
National Association of Public School Business Officials, Committee on Insurance Research, An Investigation of Insurance Practices. Pittsburgh, Pennsylvania, 1941.
National Association of Public School Business Officials, Insurance Committee, Insurance Committee Report on School Fire Insurance, 1938-45, Kalamazoo, Michigan: The Association, 1948.

[2]Melchior, William T. Insuring Public School Property. Teachers' College, Columbia University. Contributions to Education. No. 168. N.Y. 1925.

[3]Upton, Ronald H. A Study of Fire-Insurance Cost and Practices in City School Districts. Unpublished Ed. D. Dissertation. University of Southern California. Los Angeles: 1947.

TABLE XV

COST-LOSS RATIOS OF CITY SCHOOL DISTRICTS IN THE UNITED STATES AND CANADA BY POPULATION GROUPS 1938 TO 1945 INCLUSIVE

Size of cities	Total number of cities	Total population represented	Total premiums paid by city school districts	Total fire losses paid by insurance companies	Per cent of premiums paid to fire losses
1	2	3	4	5	6
Cities of more than 100,000 population	36	12,260,859	$3,267,511	$1,115,313	34.13
Cities of 30,000 to 100,000 population	74	3,902,950	2,049,656	464,128	22.65
Cities of less than 30,000 population	31	584,114	409,619	248,041	60.56
All cities	141	16,747,723	$5,726,786	$1,827,482	31.91

Upton, Ronald H. Op. cit. p. 84.

A Georgia study[1] in 1941, which compared cost-loss ratios in rural and city school districts, found that the ratio of losses to premiums paid was higher in village areas (55 per cent) than in the cities (17.8 per cent) or the strictly rural areas (27.2 per cent). The average for the state was 27.4 per cent.

An Ohio study[2] covering the years 1930 to 1946 reported that Ohio boards of education had paid $8,100,943.58 in insurance premiums and that the ratio of these premiums to indemnities paid school districts for fire losses was 26.9 per cent for cities, 24 per cent for exempted villages, and 20.3 per cent for rural districts.

In all of the foregoing studies the cost-loss ratios were described by the writers as being low in comparison to insured losses. In some cases[3] the data turned up by the studies were used in obtaining lower insurance rates for school districts. In other instances, when lower insurance rates could not be obtained, the larger school districts established self-insurance programs by building up reserve funds to cover possible fire losses. In nine states, state insurance programs have been organized, five of which insure public school property as well as state property. These local district self-insurance programs and the state programs of insurance will be considered in detail in Chapter V of this study.

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[1]Anderson, E. R. "School Fire Insurance Premiums and Indemnities in Georgia." The American School Board Journal. 103:58. August, 1941.

[2]Shuman, W. L.; Eyman, R. M.: Bash, E. W. "A Study of School Insurance Costs." Report of the Educational Council, 1947. Columbus: Ohio Education Association. pp. 5-12.

[3]National Association of Public School Business Officials, 1941. Op. cit. p. 15.

Oregon Insurance Cost-Loss Ratios

The Oregon Insurance Rating Bureau has not considered schools in this state as good insurance risks. This is indicated by the excessive premium rates that the schools have paid. These rates are defended by officials[1] in the aforementioned Bureau on the grounds that even though the school losses have not been large, many school buildings are constructed of such materials and in such a manner that a series of school fires could result in heavy demands on the insurance companies. The Bureau also feels that schools are subject to unusual dangers from acts of arson. There are, however, no statistics offered to prove this allegation other than the fact that a series of older school buildings in Portland in the late 1930's were lost in fires thought to have resulted from arson.

One measure of the risk which school buildings represent compared with that represented by other types of buildings is the ratio of fire losses to insureble value of buildings insured. When such a measure is applied to Oregon experience, it would appear that for recent years at least, school buildings as a class are less of a risk than mercantile and office buildings as a class, for data from the State Fire Marshall's Office for the period 1948-53 inclusive indicate that the ratio of fire losses on school buildings to insurable value of such buildings insured was 4.6 per cent (Table XVI) compared with the corresponding ratio for mercantile and office buildings of 6.3 per cent for the same period.

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[1]Personal Interviews with the Directors of the Oregon Insurance Rating Bureau: July 16, 1953; September 22, 1953; and November 19, 1954.

TABLE XVI

FIRE INSURANCE COVERAGE AND LOSSES REIMBURSED
IN OREGON EDUCATIONAL INSTITUTIONS
1948 TO 1952 INCLUSIVE

Nature of Education Building	Premiums Paid	Losses Sustained	Cost-Loss Ratio
1	2	3	4
Frame Protected	$825,964	$227,814	26.6
Frame Unprotected	670,118	12,590	18.7
Brick Protected	963,638	348,381	36.12
Brick Unprotected	145,682	25,585	17.5
Fire Resistive Protected	106,400	39,002	36.7
Fire Resistive Unprotected	3,766	103	2.7
Total All Construction	$2,715,568	$766,373	30.3

TABLE XVII

ANALYSIS OF INSURED LOSSES[1]
AS REPORTED BY STATE FIRE MARSHALL, 1948-53

Educational Institutions

Year	Number of Claims	Sound Value	Actual Loss	Per Cent of Loss to Value	Amount of Insurance	Insurance Paid
1	2	3	4	5	6	7
1948	48	$ 1,345,594	$125,477	9.32	$ 1,164,009	$ 98,258
1949	42	10,595,473	330,918	3.12	10,242,667	302,559
1950	44	11,712,214	360,754	3.08	11,439,073	340,968
1951	44	10,462,124	74,205	.70	10,345,226	74,205
1952	32	2.122,064	219,024	10.32	2,048,748	171,708
1953	56	12,750,033	177,420	1.39	12,688,263	162,874

[1]Department of State Fire Marshall. Annual Reports for the Calendar Year 1948-1953.

When the cost-loss ratio for public school buildings alone, including the insurance sold by both stock and mutual companies, is considered, the ratio is still lower. For the five-year period 1948 to 1952 the public school systems of Oregon paid $2,715,568[1] for stock company insurance and $1,821,500[2] to mutual insurance companies, a total of $4,537,068. During this same period they received in reimbursement from these companies for fire losses sustained, $1,150,577. This represented then, a cost-loss ratio of 25 per cent for the public schools for the five-year period.

The cost-loss ratio for the year 1953 is even lower than the average for the preceding five years. During 1953 the public school districts of Oregon expended $1,119,500 in premiums for $148,554,262 of fire insurance coverage. They received in indemnities for fire losses in that year only $142,874, which represented a cost-loss ratio of only 13 per cent.

The foregoing ratios are considerably below the ratio of 50 per cent reported by Best[1] (Table XIV) as the cost-loss ratio for all types of property insured by stock fire companies of the United States for the period 1929-49.

A word of caution seems warranted at this point. It should not be assumed that the 75 per cent of the school premiums retained by the insurance companies was all profit. Operating costs and special reserves

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[1]Best's Insurance Guide with Key Ratings. New York: Alfred M. Best Co. 1950.

referred to earlier in this chapter must be met from these premiums. Self-insurance programs providing this same coverage would have some current operating expenses and the need for reserves as well. However, notwithstanding this essential need for operating funds, and the legitimate practice of establishing reserves for unusual demands on the companies, it would still seem that the question may reasonably be asked whether fire insurance rates for Oregon schools are not unduly high. The legitimacy of this question is evident when it is remembered that the current operating expenses of stock insurance companies for the 20-year period 1929 to 1949 amounted on the average to 46 per cent of the premiums collected by these companies.[1]

The cost-loss ratio for Oregon school districts is lower than that revealed by any of the three studies made by the National Association of School Business Officials, referred to earlier in this report, and yet on the basis of their data the Association was moved to make the following statement:

> The fire insurance business of city school districts yields stock companies upward of ten million dollars in premiums collected annually. Their charges for this business are exorbitant. They do not intend to do anything about it. School districts should seek more economical sources for protection. There are other ways that are safe. . .[2]

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[1] Best's Insurance Reports. 1950. Op. cit. p. 15.

[2] National Association of Public School Business Officials, 1948. Op. cit. pp. 15-16.
The other "safe ways" referred to by the Association are local district self-insurance through the establishment of insurance reserve funds and state insurance.

It would appear, in the light of Oregon's experience, that organizations and groups in Oregon interested in the wise and prudent management of public school funds would be justified in seeking from the Oregon Insurance Rating Bureau some downward adjustment in public school fire insurance rates.

Summary

It is essential to the success of the insurance business that costs be assessed equitably among policyholders so that each pays according to the risk and expense his class of insurance entails. Insurance rates and insurance costs are discussed in terms of: (1) the establishment of fire insurance rates in Oregon, (2) insurance companies' costs of operation, and (3) public school fire insurance cost-loss ratios.

The two most important factors affecting fire insurance rates are: (1) the class of property to be insured, and (2) the insurance class of the city's fire protection facilities.

Buildings differ greatly in the extent of the risk they represent in terms of possible fire damage. Rating bureaus take into account the characteristics of various type buildings in establishing classes of risk. The risks are divided in four major classifications: (1) Class A, (2) Class B, (3) Class C, and (4) Class D.

The second major factor affecting fire insurance rates is the insurance class of the municipality's fire protective facilities as it is defined by the Oregon Insurance Rating Bureau. The rating takes

into account the hazards, structural conditions, climatic conditions, and the extent and nature of the municipality's fire defenses. As a guide in establishing the insurance class of a city, the Oregon Insurance Rating Bureau follows the Standard Schedule for Grading Cities and Towns of the United States with Reference to Their Fire Defenses and Physical Conditions. This schedule divides the cities and towns into ten classifications, a class of "1" being assessed the lowest insurance premium rate and a class of "10" the highest insurance rate.

The rates established for fire insurance must be sufficiently high to provide for the operating expenses of the insurance company, the fire losses and a reasonable profit. Best's Insurance Guide indicates that fire insurance companies have operated on an average of 44 per cent of premiums earned during the period 1929 to 1952. The Insurance Commissioners' Association suggests that 6 per cent of the premiums earned is adequate as profit. The cost-loss ratios averaged 50 per cent of the earned premiums during the period 1929 to 1952.

Six state and national school fire insurance studies were reviewed, all of which reported that the fire insurance companies were charging excessive premium rates on public school buildings.

In comparing the cost-loss ratios in the Oregon public school fire insurance program, it was found that the cost-loss ratio was 25 per cent for a five-year period 1948 to 1953 and 13 per cent for 1953.

These ratios are considerably below the ratio of 50 per cent reported by Best as the cost-loss ratio for all types of property insured for a 23-year period 1929 to 1952. It appears evident that in comparison to some areas, Oregon public schools have been paying too much for fire insurance protection.

CHAPTER V

SELF-INSURANCE PROGRAMS

It was observed in the preceding chapter that concern with the costs of insurance has led to the development of some self-insurance programs aimed at providing the requisite protection against fire loss at less expense to public bodies. These self-insurance programs involve the development of reserve funds by the insured with the expectation that fire losses will be met from these funds. In some instances, provision is made for the reinsurance of the property so that the reserve funds provide the coverage only up to a specified amount, after which the private insurance assumes the remainder of the burden.

These self-insurance funds are found at both the state and local levels. This chapter is devoted to a consideration of the experience of some of these self-insurance programs.

State Insurance Programs

Nine states[1] are currently operating state insurance funds for the purpose of insuring public property against fire and, generally,

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[1]Nine states (Colorado, Iowa, New Jersey, Vermont, Georgia, Rhode Island, Tennessee, Minnesota, and Montana), which at one time had state insurance programs, have since discontinued them. These programs were abandoned for a variety of reasons, and will be discussed in more detail in later sections of this chapter.

the perils included in an extended coverage endorsement. One state (North Carolina) insures only public school property through its state insurance fund, four states (Alabama, North Dakota, South Carolina, and Wisconsin) insure all state property as well as local school district property, and the remaining four states (Florida, Kentucky, Michigan, and Oregon) provide for insurance of state buildings but none for the local public school districts.

The details of the self-insurance programs in these various states vary considerably, as a review of the state plans in later sections of this chapter will show. However, there are some similarities as follows:

1. There is defined for each fund a maximum reserve to be established. The maximum is expressed either in terms of a specified number of dollars, or in terms of an amount equal to a specified proportion of the insurance in force.

2. Either the agencies insuring with the fund are charged a premium less than the commercial premium would be, or where the premium is the same as the commercial premium, once the reserve fund has been built up to the specified maximum, additional premiums are used to offset other state funds.

   Oregon is the single exception to this. No premiums are assessed against the agencies insured, for the reserve is maintained by biennial appropriations of the legislature.

3. Most of the state insurance funds provide for reinsuring large risks with private insurance companies. This insurance is usually written with a large amount deductible to be paid from the state reserve fund. The reinsurance carries a very low rate since all but very heavy losses are met from the state reserve.

An analysis of the experience of the aforementioned nine states indicates that in only two (Oregon and Michigan) have there been losses which could not be met from the reserves maintained by the state. For the most part, the existing state programs have provided insurance coverage for property either at less cost to the insured or, if at the same cost to the insured as commercial insurance, the state program has enjoyed substantial profits.

In the paragraphs which follow (pages 121 to 146), a brief outline of the present state insurance programs is presented.

Alabama[1] The State Insurance Fund of Alabama has been in operation since October 1, 1923. An initial appropriation of $100,000 was made by the Alabama State Legislature. To date it has not been necessary to use any part of this original appropriation, all operating expenses and indemnities paid have been met from premiums collected.

The Fund insures public buildings against loss by fire, lightning, windstorm, and hail. As of September 30, 1949, there were insured in the Fund a total of 6,615 public buildings, valued at $113,933,281, which were classified as follows:[2]

		No. of Bldgs.
Group I	Administrative, Capitol Buildings, and State Armories	1,164
Group II	Eleemosynary and Correctional Institutions	352
Group III	Institutions of Higher Learning	1,293
Group IV	Prison and Farm Properties	513
Group V	County High and Elementary Schools	3,290
Group VI	Alcoholic Beverage Control Board Stores	None
Group VII	City Schools	3

[1] The Code of Alabama. 1940. Vol. V. Tit. 28. Ch. 11. Secs. 317 through 328 as amended by Acts of Alabama, 1949, Act No. 675, p. 1045.
[2] Arkansas Legislative Council, Research Department, Summary of State of State Self-Insurance Programs. p. 7.

Almost 50 per cent of the total number of buildings insured in the State Fund represents public school buildings. (Groups IV & VII)

The Fund operates on a fiscal year basis, with each policy issued on October 1, the beginning of the fiscal year. All policies and endorsements expire at the close of the fiscal year.[1]

The State Insurance Fund of Alabama is operated by a staff of four persons, a manager, a secretary, an accountant, and an inspector. These persons must handle all of the details incident to managing the Fund, including inspection of risks, and adjusting losses.

The total operating cost of the Fund is limited by law to 4 per cent of the amount of premiums written each year. For the fiscal year ending September 30, 1949, this would have provided an operating fund of $41,744.44. The actual operating expenses for that year were $21,053.80.[2]

The consolidated statement of the Fund from 1923 to 1949 indicates that the total income to the Fund was $12,992,651.38, of which $10,783,782.02 represented the total premiums paid, and the balance consisted of profits on investments and reinsurance recoveries ($1,816,091.69).

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[1] Annual Report, Department of Finance, State Insurance Fund, for Fiscal Year Ending September 30, 1949. Montgomery, Alabama. p. 12.

[2] Ibid. p. 3.

TABLE XXV

CUMULATIVE FINANCIAL STATEMENT
ALABAMA STATE INSURANCE FUND[1]

Item	Amount
1	2
Total Premiums at Commercial Rates	$10,783,702.02
Less Amount Reinsured	3,129,809.78
Amount Retained by State Fund	7,653,972.24
Actual Cost of Carrying	3,214,234.75
Saving[2]	$ 4,439,737.49

[1]Annual Report, Department of Finance. Montgomery, Alabama. Op. cit. p. 6.

[2]Reduction in Commercial Premiums $3,020,211.59 and Earned Surplus $1,419,525.90, a total of $4,439,737.49.

TABLE XXVI

STATUS OF THE ALABAMA STATE INSURANCE FUND
AS OF SEPTEMBER 30, 1949[1]

Item	Amount
1	2
Total Values of Buildings and Contents	$ 113,993,281.00
Fire Insurance Coverage	88,886,938.00
Fire Reinsurance Coverage	37,007,440.00
Net Fire Risks Covered by Fund	51,879,498.00
Tornado Insurance	84,191,729.00
Tornado Reinsurance Coverage	16,689,000.00
Net Tornado Risks Covered by Fund	67,502,729.00

[1]Arkansas Legislative Council. Op. cit. p. 6.

The premium rates charged on the amount of insurance retained by the Fund are subject to a statutory discount of 40 per cent. In other words, the premium charged by the Fund is 60 per cent of the commercial rate for comparable risks.

On a similar insurance reduction in the state of Oregon for a 5-year period 1948-52, inclusive, the savings on educational institutions would have been $1,086,227.20 on stock company insurance alone.

A similar saving in fire insurance rates for the public schools of Oregon would have amounted to $447,800 in 1952-53.

Florida[1] The State Fire Insurance Fund of Florida was established for the purpose of insuring public property on the state level against fire. This Fund was established by an Act of the Florida Legislature in 1917 and is operated under the Board of Commissioners of State Institutions. No single risk may be insured with the Fund in excess of $50,000 except with the approval of the aforementioned board.[2]

The premium rates charged, according to the law establishing the Fund, is "as nearly as possible as practicable that charged upon other property of similar character by licensed insurance companies in the state."[3] The rates charged are fixed by a private rating bureau in the state of Florida.

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[1]Florida Statutes, 1949. Vol. I, Tit. 18, Ch. 284., Sec. 284.01-284.14.
[2]Smith, George D. Fire Insurance Coverage for Washington School Districts. Bureau of Governmental Research and Services, University of Washington, Seattle, 1951. Report No. 114. Op. cit. p. 16.
[3]Ibid. p. 17.

In June 1950, there was a total of $77,011,231 of fire insurance carried on 3,000 state buildings insured in this Fund. Of this amount, about one-third was reinsured in commercial insurance companies.[1]

Sections 284.10 and 284.11 of the Florida code authorize the state treasurer to make loans from the Fund when the reserve exceeds $1,000,000 after paying all accrued expenses and losses.

These loans may be made upon the request of the State Board of Education, the Board of Commissioners of State Institutions, or the State Board of Control. The loans may be used "to install such equipment, apparatus, and facilities in state buildings under their cognizance as will result in reduction of rates for such buildings. These loans are repaid by continuing to charge the premium rate which was collected before the improvements were made."[2]

The summary of the Fund for the period July 1, 1949, to June 30, 1950, is as follows:

PREMIUMS		
Premiums written prior to July 1, 1949..	$2,364,371.28	
Premiums written during year.....	203,841.26	$2,568,212.54
INTEREST		
Interest previously reported.....	699,334.57	
Interest earned during year on bonds....	59,972.40	759,306.97
		$3,327,519.51
FIRE LOSSES		
Fire losses previously reported.....	341,818.52	
Fire losses paid during period.....	45,355.82	
		$2,940,345.17

[1] Smith, George D. Op. cit. p. 16.

[2] Ibid. p. 17.

PREMIUM TAX

Deduct 2% premium tax, lost to State on premiums previously written		47,257.52	
On premiums written during period		4,076.83	51,334.35
			$2,889,010.82

Administration Expense	Previously Reported	During Year	
Inspections	$ 7,298.29	$ 374.20	
Salaries	85,279.72	8,180.00	
Miscellaneous Postage, supplies, etc.	6,259.45	51.60	
	$98,837.46	$8,605.80	107,443.26
			$2,781,567.56

The financial statement for the Fund as of June 30, 1950, is as follows:

Treasury balance July 1, 1949	$ 72,208.34	
Balance due under section 284.10 and 284.11	9,038.15	$ 81,246.49
RECEIPTS		
Coupons and interest	59,972.40	
Premium payments	181,125.00	
Bonds redeemed and sold	162,235.60	$403,333.00
DISBURSEMENTS		
Bonds purchased	348,467.66	
Fire losses	45,355.82	
Salaries	8,180.00	
Travel	374.20	
Other supplies (postage supplies, etc.)	51.60	$402,429.28
Treasury balance June 30, 1950		43,754.39
Amount unpaid under section 284.10 and 284.11	9,038.15	
Bonds portfolio	$2,012,500.00	$2,021,538.15
TOTAL ASSETS		$2,065,292.54

[1]Smith, George D. Op. cit. pp. 18-19.

North Carolina[1] The Public School Insurance Fund of North Carolina was established on July 1, 1949, for the purpose of insuring public school buildings against losses by fire and perils included in an extended coverage endorsement.

The foregoing Fund was established by an Act of the State Legislature after the State Department of Education had kept a complete record of school insurance and insured losses for a period of ten years (1938-48). These data revealed that the schools had carried a total of $895,875,444.47 fire insurance in the ten-year period. For this amount of insurance they had paid $4,602,220.21 in premiums and had suffered losses of $2,857,990.66. The average annual loss during this ten-year period was approximately $286,000 while the greatest annual loss was $450,000.

In the summer of 1948 while school boards were attempting to get a rate reduction on public school buildings "the Insurance Commissioner of North Carolina without any public hearing whatever approved a horizontal increase of 25 per cent in the fire insurance rates for public schools."[2] This resulted in an immediate increase of approximately $200,000 in the insurance cost to the local administrative units. The State Board of Education protested the increase but without success. The Insurance Commissioner refused to cancel or reduce the increase.

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[1]Laws of North Carolina, 1949. Ch. 1182, p. 1436.

[2]Letter to C. Edwin Ditto from Thomas B. Winborne, Director, Division of Insurance dated April 14, 1955.

It was then that the State Board of Education sought from the 1949 General Assembly authority to set up and operate a school building insurance fund. The insurance companies and their agents opposed this legislation. The State Board of Education, however, managed to obtain favorable action from the general assembly,[1] and the fund went into operation July 1, 1949.[2]

The Director of the Division of Insurance gives the following account of the North Carolina Public School Insurance Fund:

> Participation in the state school insurance fund by the local school units is entirely voluntary. The local units are free to place their business with the stock and mutual companies if they so desire.
>
> One of the first results of the establishment of the fund was a slash in the rates charged by the stock companies. Within a few months after the establishment of the fund, they petitioned the insurance commissioner in effect to restore the old rates. Since then these rates have been further decreased. The State Board of Education is convinced that no such relief would have been granted if the stock companies had not been forced to compete for business with a public fund.
>
> The state insurance fund has made during its brief operation a very substantial profit which has gone into surplus. At the time when the fund was established, the General Assembly authorized the State Literary Fund in effect to lend the state insurance fund two million dollars to be repaid in the future in units of one million dollars. Not a penny of this fund has ever been actually used in the payment of losses. The State Literary Fund is a fund which lends money to the local units in small sums for building purposes. It was more or less inactive,

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[1]Letter from Thomas B. Winborne. Op. cit.

[2]Laws of North Carolina. Chapter 1182. 1949. Amended 1953. p. 1436.

and the transfer of the two million dollars involved no hardship as the money was either in the banks or in short term federal securities.

The State Board of Education thinks that a state school building insurance fund is entirely sound both as to the purposes which it seeks to serve and as to the financial basis upon which it rests. As you will know, private business with a scattered risk of that kind would operate as a self-insurer. The risk is scattered, and there is little or no moral hazard attaching to the coverage.

Of course, if and when you propose state insurance, you will be met with the arguments of socialism, communism, etc. Of course, such a project is not socialistic. The state is not selling insurance to private individuals or corporations. It is merely underwriting the risks of its political subdivisions. A state insurance fund is sound business and nothing else.

When the state insurance in North Carolina was established, it was found that most of the units were carrying very insufficient insurance. Most of them have now taken advantage of the lower insurance charges to increase their coverage materially. This is true of the units that do not participate in the fund as well as those who do place their insurance with the fund.

One of the greatest benefits flowing from the fund has been the establishment and maintenance by the state of a fine inspection service. Approximately one-half of the budget of the fund goes to inspection activities designed to minimize the risk of fire. Whenever a unit has a fire, the state fund makes prompt and full settlement. It is interested in seeing to it that the school unit replaces the destroyed structure as speedily as possible, but the fund undertakes to prevent the fire through highly effective inspection service.[1]

The North Carolina Public School Insurance Fund now has a reinsurance contract with Lloyd's of London which insures in excess of the State's liability of $200,000. This policy is similar to the deductible automobile policy. The Fund assumes the first $200,000 liability and the reinsurance pays all losses in excess of that amount.[2]

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[1]Letter from Thomas B. Winborne. Op. cit.

[2]Ibid.

The rate established for each particular school is based on the information obtained by state engineers on their inspection of the school. These rates are approximately 68 per cent of the rates used by the commercial insurance companies prior to 1948.

The administrative cost of the Insurance Division has run well under 10 per cent of the earned premiums. The Fund may by state law, however, use up to 10 per cent of its premium income for administration.

All losses have been paid in full, up to the amount of insurance carried on any one particular building in the schedule. Losses are adjusted promptly in order that the local unit may proceed with repairs immediately.[1]

In spite of the fact that the State of North Carolina was the last state to establish a state insurance program, it seems quite evident that the program is now operating on a sound business basis as indicated by the annual report of the Fund.

STATE BOARD OF EDUCATION
PUBLIC SCHOOL INSURANCE FUND

STATEMENT OF CONDITION AS OF JUNE 30, 1954

ASSETS

Cash on Deposit	$ 184,057.25
Accounts Receivable--Insurance Premiums	7,357.69
Accrued Interest on Investments	22,083.91
Deferred Expense--Reinsurance Premium	2,437.50
Investments--U. S. Government Securities	2,683,038.12
Total Assets	$2,898,974.47

LIABILITIES AND RESERVES

Liabilities		
Unearned Premiums		$ 151,545.57
Reserves for Payment of Losses		
Reserve--Claims in Process of Adjustment	$ 44,197.63	
Reserve--From State Literary Fund	2,000,000.00	
Earned Surplus	703,231.27	
Total Reserves		2,747,428.90
Total Liabilities and Reserves		$2,898,974.47

[1]Letter from Thomas B. Winborne. Op. cit.

STATEMENT OF INCOME AND EXPENSE[1]
FOR THE YEAR ENDED JUNE 30, 1954

INCOME

Earned Insurance Premiums	$414,163.73
Earnings on Investments	82,999.61
Total Income	$497,163.34

EXPENSE

Fire Loss	$ 238,725.84	
Reinsurance Premium	7,312.50	
Administrative Cost	29,532.68	
Total Expense		275,571.02
Excess of Income over Expense		$221,592.32

Michigan[2] The State Insurance Fund of Michigan was established on July 1, 1913, for the purpose of insuring state property against loss by fire, lightning, windstorm, explosion, riot, riot attending a strike, civil commotion, falling aircraft, hail, and smoke.

The Fund does not insure school properties below the state level nor certain properties on the state level. According to reports[3] in 1950, the replacement value of buildings insured in the Fund amounted to $258,225,270.81. This was also the amount of insurance carried. From June 30, 1914, through June, 1949, (no premiums were collected from 1921 to July, 1928) the total premiums had amounted to $3,145,524.86. The premiums charged amounted to an average of 25 per cent of the rates charged by commercial companies licensed to write insurance in the State.

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[1]Report on Public School Insurance Fund Issued by The Division of Insurance of the State Board of Education. Raleigh, North Carolina: 1954.

[2]The Compiled Laws of the State of Michigan. 1948. Vol. III. Ch. 550. Secs. 550.701 through 550.708. Public and Local Acts of Michigan. Act No. 100. p. 105.

[3]Mimeographed Report from the Director of the State Insurance Fund. April 13, 1955.

From 1914 to 1945 the premium rate, by law, could not exceed 60 cents per hundred dollars of insurance. In 1945, the law was amended to authorize the Fire Insurance Rating Division, in the Department of Insurance, to fix the rate of insurance at not to exceed the rates set for insurance companies on similar risks.

From June 30, 1914, to June, 1947, the total indemnities paid from the Fund amounted to $1,670,750.16.[1] The cost-loss ratio for the period was 53.1 per cent. However, the premium rate was only 25 per cent of the commercial rate and no premiums were collected for a period of seven years (1921-28).

After a most successful thirty-eight years the state insurance picture changed in Michigan. On February 8, 1951, an arsonist started a fire in the mezzanine between the sixth and seventh floors of the state office building at Lansing, Michigan. The fire lasted four days, and news releases estimated the loss at between $5,000,000 and $7,000,000. The estimate agreed upon by the State Administrative Board, the State Building Division, the State Department of Insurance, and the Western Adjustment Company placed the loss at $1,455,691.24. At the time there was only $1,500,000 in the self-insurance fund.[2] A recent report indicates that it actually required a state legislative appropriation of $1,865,000 to replace the fire and water damage to the building.[3]

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[1] Mimeographed Report from the Director of the State Insurance Fund, Michigan. April 13, 1955.

[2] State of Indiana. Report on Insurance of State Buildings. May, 1952. (Mimeographed report). p. 16.

The following year (1952) another major loss of Michigan state property occurred as a result of the savage prison riot in the Southern Michigan prison at Jackson. Estimates of the damage done by rioting convicts ran as high as $2,500,000.[1] However, through the use of inmate labor, the restoration of the damaged prison was accomplished at an expenditure of only $290,877.47.[2]

CATASTROPHE COSTS
STATE PROPERTIES INSURED IN STATE INSURANCE FUND
July 1, 1913 to June 30, 1954

FROM
ACCOUNTING DIVISION, DEPARTMENT OF ADMINISTRATION RECORDS
STATE OFFICE BUILDING - FEBRUARY 8, 1951

Allocations to and from State Insurance Funds - June 30, 1954

Gross Certifications (Building Rehabilitation).....	$175,000.00
Gross Certifications (Contents Rehabilitation).....	495,674.59
Gross Certification (Building and Contents).....	670,674.59
Net Expenditures (Building and Contents).....	612,223.38
Returned to State Insurance Fund.....	57,173.60
Balance.....	1,277.81

SPECIAL LEGISLATIVE APPROPRIATIONS - June 30, 1954
(Act No. 272 P. A. 1951)

Replace Fire and Water Damage to Building..... (Determined by Building Division - April 1951)	1,865,000.00
Modernization of Building	1,056,000.00

PRIVATE INSURANCE FUNDS

State Library.....	233,609.44

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[1]Letter from L. H. Moore, Director of the Michigan State Insurance Fund dated April 13, 1955.

[2]Ibid.

STATE PRISON OF SOUTHERN MICHIGAN - APRIL 21, 1952

Allocations to and from State Insurance Fund - June 30, 1954

Gross Certification by Commissioner of Insurance.....	150,000.00
Allocation by Legislative Act (Act No. 271, P.A.1952)	250,000.00
Allocation by Accounting Division.....	5,228.75
Net Certifications.....	405,228.75
Net Expenditures.....	290,877.47
Returned to State Insurance Fund.....	100,000.00
Balance.....	14,351.28

SPECIAL LEGISLATIVE APPROPRIATIONS -- June 30, 1954 None

PRIVATE INSURANCE FUNDS None

(The damages to buildings and contents was estimated, 5-13-1952, to be $1,091,548.56. Replacement of damage has been limited to $290,877.47 by use of inmate labor.)

COSTS

REPLACE DAMAGE (FIRE, WIND, LIGHTNING) STATE PROPERTIES

STATE INSURANCE FUND
1929 - 1954 (26 Years)

Gross Average Annual Cost $ 103,237.08
(Losses of $500,000 and Less)

Annual Average Administration Cost

Salary (1950-1954)	$ 6,798.76
Travel (1950-1954)	1,629.47

Average Annual Cost (Pvt. Insurance 1952-1954) $ 19,150.90
(Liquor Stocks, Fixtures, Equipment 7831 W. Fort, Detroit)
(Liquor Stocks, Fixtures, Equipment 500-600 S. Hosmer, Lansing)

Average Annual Interest
(Earnings on Investments) $ 10,987.41

Net Average Annual Cost $ 92,249.67
(Losses of $500,000 and Less)

North Dakota[1] The State Fire and Tornado Fund of North Dakota was established on July 1, 1919, with no legislative appropriation, for the purpose of insuring the properties of the state, counties, and cities including public schools, against fire and the perils included in an extended coverage endorsement.[2]

The original act, passed in 1919, required the Fund to charge the same rates as those charged by responsible Fire and Tornado companies until the Fund was 10 per cent of the risk carried and then to adjust the rates to maintain the Fund at 10 per cent. In 1943, the legislature set the Fund requirements at $3,000,000 with assessments to be maintained at 50 per cent of the Bureau rates until this requirement was met. In 1947, the Fund requirements were raised to $4,000,000.

Provision was made in the original act that no single risk in an amount greater than $100,000 should be insured by the Fund within the first five years after the effective date; all risks exceeding that amount were to be placed with some reliable fire and tornado insurance companies. From 1919 to 1943, the Fund carried reinsurance on most risks in excess of $100,000.

In 1943, the legislature provided for cancellation of all reinsurance, leaving all risk to be carried by the Fund. The same legislature then passed the "catastrophe insurance law" providing for reinsuring extraordinary risk. The only risks carried outside of the Fund (1952)

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[1]North Dakota Revised Code of 1943. Vol. II. Ch. 24-26. Secs. 26-2401 through 26-2425, as amended by North Dakota Revised Code of 1943 (1949 Supp.)

[2]Biennial Report of the Fire and Tornado Fund, 1951-52. North Dakota. p. 4.

are the State Mill and Elevator, The State Twine and Cordage Plant, reinsured as extraordinary risks for the sum of $9,799,800, the Fund being responsible for $112,496,896.40. The highest single risk insured in the Fund is the Capitol Building, which, with contents, is insured for $3,835,478.

The continuing problem of the Fund is the question of risk carried in relation to the reserve funds. As of December 31, 1952, the reserve, including all assets without any allowance for unearned premiums, was $2,915,626.32; the net risk carried by the Fund totaled $112,496,896.40 at that time.[1]

STATE OF NORTH DAKOTA

FINANCIAL STATEMENT FOR 1952

Assets--December 31, 1951			$3,056,930.85	
Premiums Written--Fire	$ 34,658.73			
Less Refunds	171.80			
	$ 34,486.93			
Premiums Written--Ex. Cov.	$ 8,195.85			
Less Refunds	.93			
	$ 8,194.92			
Total Premiums Written			$ 42,681.85	
Interest Income			85,632.55	
Policy Fee			1,170.08	
Checks Charged off			40.11	
Adjusting Expense				$ 7,551.61
Fire & Extended Coverage Losses				234,513.27
OPERATING EXPENSE				
Salaries	$ 10,294.91			
Postage	15.00			
Supplies	132.67			
Printing	205.30			
Miscellaneous	427.53			
Risk Inspection	7,253.03			
Asst. Attorney General	1,680.00			
Total Operating Expense				$ 20,008.44
Assets--December 31, 1952				2,924,382.12
			$3,186,455.44	$3,186,455.44

[1] North Dakota Biennial Report. Op. cit. p. 7.

STATE OF NORTH DAKOTA

TOTAL INSURANCE IN FORCE WITH
STATE FIRE AND TORNADO FUND

December 31, 1952

Municipality	Risk
State	$ 37,491,833.00
County	8,002,646.40
Schools	51,616,747.00
Cities and Villages	15,219,430.00
Townships	166,240.00
Total Risk Carried by Fund	$112,496,896.40
Risk Reinsured	9,799,800.00
Total Insurance in Force	$122,296,696.40

BREAKDOWN OF RISK REINSURED

State Mill and Elevator--Bldgs		$4,127,800.00
	Grain	4,500,000.00
Twine & Cordage Plant--	Bldgs	572,000.00
	Stock	600,000.00
Total Risk Reinsured		$9,799,800.00

South Carolina[1] The Insurance Sinking Fund of South Carolina was established in 1900. The Fund insures state, county, and public school property against loss by fire, lightning, and perils included in an extended coverage endorsement. The Fund is administered by the State Sinking Fund Commission, which administers several other state sinking funds.[2]

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[1]Code of Laws of South Carolina. 1942. Vol. II. Tit. 23. Ch. 98. Secs. 2180 through 2195. Also South Carolina Acts, 1947. Act No. 104. p. 104.

[2]Smith, George. Fire Insurance Coverage. Op. cit. p. 28.

The buildings are insured at approximately 75 per cent of the replacement value with the same amount of extended coverage. The premiums charged are determined by the Sinking Fund Commission and may not exceed the rates charged by commercial insurance companies for comparable risks. In 1950, these rates were reported as being from 65 to 80 per cent of the commercial rates. The law provides that when the Insurance Sinking Fund reaches 5 per cent of the total insurance in force, that the premiums are to be reduced so as to keep the Fund at that level, and when possible, no premiums are to be charged for property which has been insured in the Fund for at least five years.[1]

In reference to the success of the Insurance Sinking Fund of South Carolina, Sam B. King, Director, made the following statement:[2]

> The fiscal affairs of the Insurance Sinking Fund record the year just ending as being the most outstanding in its history. The net profit for the year ending June 30, 1954, amounted to $781,731.58. The combined profits of the Insurance Sinking Fund and Reinsurance Sinking Fund for the year ending June 30, 1954, netted $844,347.47.

In June, 1954, the total amount of insurance in effect was as follows:[3]

State Property.....	$93,505,115.89
County Property.....	31,774,795.00
School Property.....	160,210,639.00
Total.....	$285,490,549.89

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[1] Report of the Commissioners of the State Sinking Fund to the General Assembly of South Carolina for the Period Ending June 30, 1954. p. 4.

[2] Ibid. p. 3.

[3] Ibid. p. 25.

SOUTH CAROLINA

INSURANCE SINKING FUND[1]

Receipts and Disbursements from 1900 to June 30, 1954

Premium Income	$ 11,927,263.94
Interest Income	2,253,530.25
Rents	135,346.76
Premiums on bonds sold	4,138.02
Real Estate sold	18,500.00
Miscellaneous	15.16
	$ 14,338,794.13

Disbursements

Fire Losses	$ 3,765,647.17
Extended Coverage Losses	318,645.18
Expense	435,904.49
Reinsurance	2,929,845.68
Premium on bonds purchased	15,936.54
Net profit for period	6,872,815.07
	$ 14,338,794.13

Wisconsin The State Insurance Fund of Wisconsin was established on April 10, 1903, and was amended in 1911 and 1913 to include school district, municipal, county and library property as well as state property.[2]

The State provides insurance for terms of one, three, or five years. In order to insure property in the Wisconsin Insurance Fund, it

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[1]Report of the Commissioners, South Carolina. Op. cit. p. 9.

[2]Wisconsin Statutes. 1949. Ch. 210. Secs. 210.01 through 210.04.

is necessary for the governing board of the agent to be insured to pass a resolution authorizing such insurance and file a copy of the resolution with the Fund. After voting to insure in the Fund, the board in authority would be prohibited from purchasing the same type of insurance in other companies. Existing policies with other companies at the time of the passage of the resolution are permitted to run to expiration.[1]

The Fund cannot provide public liability or any type of casualty insurance. The Fund is a subscriber of the Fire Insurance Rating Bureau and the insurance written is computed at the rates established by that Bureau for commercial stock companies. The premium is then discounted 50 per cent. The coinsurance clause is optional.[2]

The Fund does not segregate the school business from the other insurance. The manager of the Fund prepared the following table for study.

(As of March 28, 1955)[3]

Total number of school districts insured:		575 to 600
Insurance in Force:	Fire & Extended Coverage	$93,223,653
	Fire	$ 4,071,690
	Wind	$ 3,584,755

School Fire Insurance

	Premiums Collected	Losses Paid
1951	$ 61,686	$ 91,530
1952	62,866	33,468
1953	73,820	160,917
1954	93,336	37,644
	$291,708	$323,559

[1]Letter to C. Edwin Ditto from Myron E. Pugh, Manager, Wisconsin State Insurance Fund, dated April 18, 1955.

[2]Ibid.

[3]Ibid.

Kentucky[1] The State Fire and Tornado Insurance Fund of Kentucky was established on July 1, 1936, for the purpose of insuring all public buildings and property under the control and use of the state or any state agency (including state schools but not local public schools) against loss by fire or any of the risks usually included in the standard extended coverage endorsement.

The Fund began with a legislative appropriation of $100,000, which was returned to the State Treasury during the fiscal year 1945-46.[2] Since then the premiums have maintained the Fund.

State Fund rates are the same as those fixed by the Kentucky Rating Bureau for commercial stock companies.

Losses for the first eighteen years of operation were $1,552,959.50. The total premiums for this same period were $2,442,424.66, this being a cost-loss ratio of 36.1 per cent.[3]

Oregon The State Restoration Fund of Oregon was established in 1925 to insure every state agency against loss, damage, or destruction of its property by "fire, flood, or other such causes." This was subsequently modified to cover "fire loss" only, and in 1945 expanded to cover "fire, storm, theft, collision or other hazards" and "fire, smoke, explosion, storm, flood, and earthquake."[4]

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[1] Kentucky Revised Statutes (4th Biennial Ed.) Tit. 7., Ch. 56. Sec. 56.070 through 56.180 as amended by Kentucky Revised Statutes, 1950.

[2] 1954 Supplement to the Kentucky Insurance Laws. p. 1.

[3] Letter to C. Edwin Ditto from Charles L. Martin, Jr., Assistant Director, dated April 14, 1955.

[4] Letter to C. Edwin Ditto from Harry S. Donman, Director, Department of Finance and Administration, State Capitol, Salem, Oregon, dated February 7, 1955.

The Fund did not issue regular reports covering its operation until the 1953 legislature made it compulsory that an annual report be submitted to the State Insurance Department.[1] No records concerning the Fund prior to 1936 are available since they were destroyed in the State Capitol building fire in that year.

According to the present director of the Restoration Fund "all of the actual fire losses have been paid from the inception of the Fund with the exception of the destruction of the State Capitol building."[2] The State Capitol was replaced with an appropriation of $2,400,000 by the Oregon Legislature.

The Director of the Department of Finance and Administration describes the grant of the State Restoration Fund as follows:

> The 1925 Legislature fixed an initial fund and annual fee of $25,000.00 to be prorated among the agencies in accordance with the ratio of the value of their property to the total value of all state property. This fund was not to exceed $300,000.00. This was later increased to $1,000,000 and by the last Legislature to $3,000,000. Likewise, the annual assessment authorized has now been increased to $400,000.00. Through the twenty-nine years this has been in effect, the ratio of the assessments has run between .0015 and .003.
>
> Property appraisals have been made by state personnel and the most recent changes in the act require that appraisals be listed at current replacement values. During these years it should be noted that in lieu of Restoration Fund new buildings constructed with funds obtained from bond issues have been required by law to carry private insurance

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[1]Oregon Revised Statutes, Chapter 278.

[2]Letter to writer from Harry S. Dorman. Op. cit.

> equivalent to the amount of the bonded indebtedness authorized for such construction. However, under the changes made in 1953 such agencies are required to contribute to the Restoration Fund to an amount equivalent to 20% of the appraised value. This is a scheme of coinsurance particularly desirable for those risks which exceed the capacity of our reserve, which would be inadequate to meet some potential million dollar losses of buildings. Our fund at the present time is approximately $876,000.00. The total insurable value of state properties as of July 1, 1954, is approximately $120,000,000.00. The fund has proved adequate for all fire losses in recent years. The cost of self-insurance as a rule is less than private insurance for full coverage would be, barring a major disaster in a concentrated risk area, and the new system of coinsurance will be helpful in that respect. However, the coinsurance plan is not compulsory and many state buildings are still covered only through our Restoration Fund.[1]

It will be noted above that the Restoration Fund is insuring approximately $120,000,000 of state property and has only $876,000 in reserve. It appears that this reserve fund is inadequate to provide the necessary protection for a sound insurance program. The State of Oregon owns buildings at the University of Oregon, Oregon State College, State office buildings, and the State Capitol, any one of these as a single risk would represent a greater insurable value than the balance in the Restoration Fund as of June 30, 1954. The Insurance Laws of the State of Oregon (Sec. 738.160) will not permit an insurance company to reduce the surplus of its assets over its liabilities.[2]

It appears that the legislature should either increase the Fund by larger annual appropriations or provide for reinsurance on very large or extra hazardous risks, and thereby avoid any possibilities of crippling the Fund in case of any great catastrophe.

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[1]Letter to writer from Harry S. Dorman. Op. cit.

[2]Insurance Laws of the State of Oregon, 1954, Sec. 738.160. p. 681.

DEPARTMENT OF FINANCE AND ADMINISTRATION
SALEM, OREGON

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RESTORATION FUND - Summary Statement of
Transactions of Allocated Fund Balance
July 1, 1953 to June 30, 1954

	Balances 7-1-53	Allocated	Reverted	Expended	Balances 6-30-54
Dept. of Agriculture	$	$ 72.39	$	$ 50.00	$ 22.39
Board of Control		482.35		482.35	
Fairview Home	12,714.50		6,333.90		6,380.60
Fish Commission	3,088.91	1,548.90		3,431.87	1,205.94
Forestry Department	2,085.80	4,069.17		3,651.81	2,503.16
Game Department	5,806.26	1,829.36	96.26	5,234.55	2,304.81
Highway Department		6.83		6.83	
Hillcrest School	80,472.30			63,718.70	16,753.60
Eastern Ore. State Hospital	7,930.48		7,930.48		
Military Department	10,329.32	85,995.89		8,347.60	87,977.61
Oregon State College	25,050.00	1,485.90		25,000.00	1,535.90
State Library	2.50	48.80		46.30	
Penitentiary	12,359.56	89,394.92		88,397.50	13,356.98
Secretary of State		5.23		5.23	
So. Ore. College of Education		200.00			200.00
Univ. T. B. Hosp.	276.87				276.87
	$160,111.50	$185,139.74	$14,360.64	$198,372.74	$132,517.86

SCHEDULE OF CHANGES IN FUND BALANCE
July 1, 1953 to June 30, 1954

Balance 7-1-53	$850,634.48	$690,522.98	$160,111.50
Assessments Received	200,000.00	200,000.00	
Interest on Investments	15,466.16	15,466.16	
Discounts	23,063.93	23,063.93	
Allocated to 6-30-54		(185,139.74)	185,139.74
Expenditures and Reversions	(212,733.38)		(212,733.38)
Balances 6-30-54	$876,431.19	$743,913.33	$132,517.86

[1]1954 Annual Report As Sent to the State Insurance Commissioner

DEPARTMENT OF FINANCE AND ADMINISTRATION
SALEM, OREGON

COPY

RESTORATION FUND - ASSESSMENT VALUES AS OF

July 1, 1953

BUILDINGS:

Total Values as reported	$110,737,435.56	
Less 80% value of Insured Property	14,724,201.41	
Assessed Value		$ 96,013,234.15

Private Insurance carried $18,373,157.00

NON EXPENDABLE EQUIPMENT:

Total Values as reported	$ 29,347,222.94	
Less 80% of insured properties	2,874,427.91	
Assessed Value		$ 26,472,795.03

EXPENDABLE PROPERTY:

Total values as reported	15,462,514.76	
Less 80% of insured properties	4,776,110.02	
Assessed Value		$ 10,686,404.74

Private insurance carried $5,812,524.23

TOTAL ASSESSED VALUES $133,172,433.92

In accordance with O. R. S. 278.011 statements are submitted biennially, therefor above valuations remain the same as sent you, in previous report as of July 1, 1953 at which time new appraisals had been submitted.

State Insurance Programs Discontinued

Since 1897 several states other than those previously listed have attempted to set up Public Property Insurance Funds of a self-insurance or emergency reserve appropriation type. Nine of these states have abolished their funds or allowed them to lapse. Some of these programs were abandoned because of the effects of mismanagement of public funds[1] while others were abandoned because of political pressures brought to bear by the insurance interests of those states. A brief description of the program in these states follows:

Colorado The State of Colorado, by legislative enactment in 1925, set up a state-insurance fund which started operation in 1926. The law provided a legislative appropriation to the Fund of $40,000 annually, the reserve not to exceed $250,000. The value of state properties in Colorado was estimated at $53,000,000.

In 1927, a fire in Colorado State Agricultural College at Fort Collins resulted in a loss of $105,000. At the time of the loss, $19,000 worth of unexpired insurance with private companies was in effect, leaving an uninsured loss of $86,000 with less than $43,000 in the state fund. It was more than 20 months before the State Auditing Board approved payment of $80,000 from state funds. Before the Fund was four years old, the State suffered further loss ($250,000 to $300,000) at the State Penitentiary at Canyon City.

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[1]Hanson, George S. State and Municipal Self-Insurance. National Association of Insurance Agents, New York, 1954. p. 49.

On January 27, 1933, the State Legislature abolished the Fund, and in 1935 passed a bill which made it legal to purchase private insurance on state properties.[1] State property in Colorado is currently insured with private insurance companies.

Iowa In 1897, Iowa established a "Providential Contingent Fund" for the purpose of restoring or repairing state property destroyed by fire, storm, and riot. The Fund was initiated with a legislative appropriation of $100,000 biennially, the balance reverting to the State Treasury at the ensuing meeting of the legislature.

This type of Fund has been considered totally ineffective as a means of protecting the taxpayers against loss of state property since it makes no provision for adequate reserves to meet expected loss.

It is reported that Iowa still makes no legal provision for private insurance but depends upon a hit or miss program of protection.[2]

New Jersey By legislative enactment in 1913 an Insurance Fund was established, providing for an annual appropriation of $50,000 until a reserve of $1,000,000 was reached. In 1935, the Fund had a reserve of only $500,000. The Fund was repealed in that year and the money used for relief purposes. State property is now insured with private insurance companies.[3]

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[1]Hanson, George S. Op. cit. p. 51.

[2]Ibid. p. 53.

[3]Ibid. p. 54.

Vermont The legislature of Vermont established a state-insurance fund in 1919 with a $10,000 annual appropriation. Provisions for this Fund were modified in 1930. Then in 1938, the State Emergency Board drew $100,000 from the Fund to purchase private insurance to improve the fire protection on public property.

At present, the State insures its property on several master policies distributed among the agents and brokers of the State.[1]

Georgia In 1935, Governor Talmadge of Georgia put into effect, without legislative authorization, a plan under which the State would assume fire and tornado risks on state property. This action aroused considerable criticism and the program was abandoned in 1936.

The 1949 legislature again presented a proposal for a State Fire Insurance Fund, but no action was taken on this measure.[2]

Other Programs Other state-insurance funds which have been inaugurated and abandoned are:

Rhode Island	-- Inaugurated 1931	Abandoned 1938
Tennessee	-- Inaugurated 1905	Abandoned 1928
Minnesota	-- Inaugurated 1913	Abandoned 1930
Montana	-- Inaugurated 1935	Abandoned 1936

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[1]Hanson, George S. Op. cit. p. 50.

[2]Ibid. pp. 50-55.

Municipal and School District Self-Insurance

Some cities and school districts have established programs of self-insurance. The exact number at present is not known, but it is small in comparison with those covered by commercial insurance. The writer found only one Oregon city (Portland) which had ever established a self-insurance program. In 1919, the Portland Public Schools established an insurance reserve fund, but seven years later (1927) abandoned the program and has insured with commercial insurance companies since that time.

The ten-year study[1] (1921-30) by the National Association of Public School Business Officials found that seven city school districts having their own insurance reserve funds had total fire losses during that period of $318,684 as compared to building valuation of $239,000,000 in 1930. The second study[2] by the Association covering the period 1930-37 reported losses of $651,000 in eleven self-insured city school districts having buildings valued in 1937 at $793,000,000. Referring to the latter of these studies, the Association suggested to school officials that they compute the cost of insurance for seven years in their own communities on this amount of property and "in this way determine the saving involved in self-insurance as based upon the experience of these eleven cities."[3]

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[1]National Association of Public School Business Officials, Committee on Insurance Research, Insurance Practices in City School Districts, Trenton, New Jersey, 1932.

[2]National Association of Public School Business Officials. Committee on Insurance Research. An Investigation of Insurance Practices. Pittsburgh, Pennsylvania, 1941.

[3]Ibid. P. 51.

The Association was convinced that any such comparison would reveal the fact that the premiums paid out for insurance on property of this value would have been excessive when compared with the losses for which the school districts would have been reimbursed.

There are hazards in a self-insurance program, however, particularly if school districts naively assume that there are no operating costs involved in a self-insurance program, and if they fail to observe that there are certain principles relating to the law of averages and the nature of risk that must be observed in fixing the extent and the nature of the self-insurance program. Some guidance in thinking through the feasibility of self-insurance programs is provided by the Committee on Municipal Insurance of the League of California Cities, which suggests that self-insurance is feasible only when the following rules are adopted and observed:

1. The number of risks to be covered should be sufficiently large to permit the orderly working of the law of averages.

2. The amount of coverage on each risk should be small and fairly uniform. The inclusion of several very large risks will prevent the proper application of the law of averages because a total loss involving one of the larger risks might wreck the whole self-insurance plan.

3. Extremely hazardous risks should be excluded from the self-insurance plan and should be placed elsewhere.

4. Risks should be independent of one another. There should be no conflagration or catastrophe possibilities.

5. If a self-insurance fund is created, it should be done gradually. Only a small portion of each risk should be placed in the self-insurance fund each

year until the entire risk is assumed by the fund. Until such time as the self-insurance plan has been put in full operation, the balance of the risks not included should be insured.

6. Little dependency should be placed on a ten or twenty-year loss record for any individual city.

7. The reserve funds should be adequate to absorb a large loss without bankrupting the city.

8. Any self-insurance fund should not be used for any other purpose.[1]

Conflicting Points of View Relative to Self-Insurance

There are current in the discussions of insurance some sharply conflicting points of view concerning the feasibility and desirability of self-insurance, whether a state, municipal, or school district program. It is the purpose of this section to examine briefly some of the more important issues raised by these conflicting points of view.

Relative Cost of Self-Insurance Program

It is pointed out by proponents of self-insurance that the costs of self-insurance can be less than commercial insurance because the operating costs are likely to be much less. Commissions and advertising can be practically eliminated, for example.[2] A comparison of reported costs of operation of stock insurance companies with those of state insurance programs seems to lend credence to this contention. For example, the

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[1]Municipal Fire Insurance. A Manual of Fire Insurance Coverages and Recommended Procedures for California Cities. Report 32. October 3, 1941. p. 30.

[2]Scoville, Wilber E. A State Program for the Fire Insurance of Public School Property in Colorado. Unpublished Master of Arts Thesis. Colorado State College of Education, Greeley, Colorado, 1952. p. 56.

Insurance Commissioner's Office in the state of Washington reports that 49 per cent of each premium dollar expended in the state for fire insurance goes to cover the costs of underwriting.[1] This figure is not out of line with the experience of all insurance companies as reported in Best's Insurance Reports. For the 23-year period 1929-52, Best reports that insurance companies in the United States expended for operating costs (excluding indemnities paid to clients) an average of 46 per cent of premiums earned, with an added 6 per cent set aside for profits.[2]

Reports from the state insurance programs indicate a much lower ratio of operating costs to insurance coverage provided. The operating costs of seven of the nine state insurance programs for which these data are available ranged from 4 per cent to 10 per cent.

In considering the foregoing figures, it should be borne in mind that the commercial insurance and state insurance system cost figures are not directly comparable. There are evidences that, in some instances at least, the state insurance cost figures are not inclusive of all of the costs of operation. Some clerical and administrative costs are not charged as insurance fund costs. Then, too, the state insurance systems often do not carry the reserves which the commercial insurance company

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[1]Smith, George D. Op. cit., p. 16.

[2]Best's Insurance Guide with Key Ratings. New York: Alfred M. Best Co. 1952. p. 11.

must, since if the reserve fund of the state is exhausted the system draws upon the resources of the state for its replenishment and to handle any unusually heavy losses such as the state of Oregon and the state of Michigan suffered, as described earlier in this study. A major fire or catastrophe may well exhaust the reserve fund and necessitate either a large bond issue or a large appropriation by the legislature.

Opponents of self-insurance point out the fact that insurance is a highly complicated business requiring specialized skills and that other businesses, very efficient in their own areas, do not attempt to operate their own insurance programs, notwithstanding they have a very large, diversified, widely separated holdings. The larger companies such as General Motors, the railroads, elevator companies, banks and chain stores which presumably could carry self-insurance recognize the difficulties in providing insurance coverage and are content to leave this field to the insurance company with its specialized abilities. They receive, say the supporters of commercial insurance, prompt and equitable settlement of claims and services above and beyond those described in the insurance policy, at a reasonable and predetermined cost.

Nonetheless, many persons who have studied the costs of commercial fire insurance for public schools have concluded that a state system of insurance could allow a generous margin for some inexpertness in the management of the program and still get insurance less expensively than at present. Scoville and Morrison, reviewing the cost-loss

ratio for insurance in Colorado, recently asserted that "One of two conditions seems quite evident. Insurance companies are making a handsome profit or school properties are paying for someone else's fire losses."[1] There is sufficient data accumulated concerning school district fire insurance cost-loss ratios to raise a question as to whether a state insurance program might not, with less expense provide an adequate insurance coverage.

Improvement of Property Accounting in Local School Districts

It is suggested by some that a state insurance program would encourage better property accounting in local school districts. They reason that if a state insurance program were established, uniform and systematic policies of property accounting could be established.[1] The appraisal of school property could be done by a state agent, such as the state engineer's office; or, if the appraisal of property were left to the local districts, they could be encouraged by the state to maintain minimum standards of appraisal both as to the quality of appraisal and the frequency of appraisal. In theory this would appear to offer some promise. There is no evidence of an objective nature to show that this would necessarily be so, however. To some, the proposal that all appraisals for public schools might be done by state engineers is akin to the proposal that all school architectural work be done by state architects. This proposal is anathema to students of school plant

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[1]Scoville, Wilber E. Op. cit. p. 55.

planning who point up that actual experience with state-appointed architects appears not to bear out the expectations that a more effective and less expensive job can be done by state architects. That there is need for improvement of property accounting practices among local school districts cannot be denied. Whether this improvement can be encouraged only, or even better, through a state insurance program is not borne out by any objective evidence of which the writer is aware.

Ensuring More Complete Fire Insurance Coverage of Public School Property

It is suggested that a state insurance program would probably insure more adequate fire insurance coverage of public school property. Evidence in the present study does indicate that many districts are under-protected with respect to fire insurance. There is no objective evidence, however, to indicate that self-insurance programs, state or local, have provided more extensive coverage. It is entirely possible that completely adequate coverage for all public school property could be assured by a program of self-insurance, particularly state insurance, involving property appraisal by state agents, but there is no objective evidence to the effect that this is necessarily the only or the best way to insure adequate coverage.

Removing the Pressure on Local Boards to Award Their Insurance Business on Some Other Basis Than the Economy and Well-Being of the School District

It is well known that school boards are often under considerable pressure to award their insurance business on some other basis than the

interests of the school district. A self-insurance program, it is suggested, would not present this problem. This is no doubt true. However, a self-insurance program is not the only alternative open to boards wishing to avoid these pressures. Chapter III of this study suggested that systematic procedures for awarding insurance business would largely obviate these pressures, and specific illustrations were given of the policies and practices of boards of education which have been successful in this respect. There would seem to be no compelling need, therefore, for self-insurance solely in order to avoid what can be obviated in some equally effective fashion. Certainly there is no objective evidence to suggest that abandonment of commercial insurance is the only recourse of the board which wishes to resist unwanted pressures from insurance agents. In this connection, it should be pointed out that a self-insurance program with the large reserves which it entails if it is soundly based, has sometimes presented a very serious problem of management and safeguarding of the fund. The pressures to dissipate the fund in one way or another have in some cases been overwhelming.

Private Enterprise and the Self-Insurance Program

Many who object to self-insurance programs do so ostensibly on the grounds that such a program represents an invasion of private enterprise.[1] This is an argument raised whenever any public agency

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[1]Hanson, George S. Op. cit. p. 58.

embarks upon a project also being carried on by private enterprise, particularly if private enterprise was first in the field or is strong in the field. If it can be assumed, however, that the state can achieve the necessary protection at lesser cost by building up its own reserves, there would seem to be no reason to deny it this economy on the grounds of invasion of private property. Much that the state or municipality does falls in the realm of private enterprise, such as operating a garbage service, providing water for the community, etc. Opposition to self-insurance on these grounds does not appear to be a valid basis for objection.

Summary

Nine states are currently operating state insurance funds for the purpose of insuring public property against fire and the perils included in an extended coverage endorsement. The state of North Carolina insures only public school property through its state fund; four states (Alabama, North Dakota, South Carolina, and Wisconsin) insure all state property as well as local school district property; and the remaining four states (Florida, Kentucky, Michigan, and Oregon) provide for insurance of state buildings but do not include those of public school districts.

Nine states (Colorado, Iowa, New Jersey, Vermont, Georgia, Rhode Island, Tennessee, Minnesota, and Montana), which at one time had state insurance programs, have discontinued them. These programs were abandoned for a variety of reasons.

The details of self-insurance programs in these various states vary considerably. However, there are some similarities:

1. Each fund provides for a maximum reserve to be established.
2. The agencies insuring with the Fund are generally charged a premium less than would be charged by a commercial company. If the premiums are the same as those of a commercial company, payments go into a general state fund after a specified maximum reserve fund is accumulated.
3. Most of the state insurance funds provide for reinsuring large risks with private insurance companies. Oregon is the single exception since no reinsurance is carried on any state-owned buildings.

An analysis of the experiences of the existing nine state insurance programs indicates that only Oregon and Michigan have suffered losses which could not be paid from the accumulated reserves. Most of the existing state programs have provided sufficient insurance coverage for the buildings involved at less than the cost of commercial insurance. In Florida and Kentucky where costs are approximately the same as for commercial insurance, substantial profits have accumulated.

Some city school districts have established self-insurance programs. The exact number at present is not known, but it is small in comparison to the number covered by commercial insurance. As far as could be determined, Portland is the only Oregon school district which has attempted a self-insurance program. This program was abandoned after a seven-year trial.

The National Association of Public School Business Officials found that several city school districts have operated successful self-insurance programs with large premium savings to the school district.

Self-insurance is hazardous because of the possibility of heavy losses in a single year, especially in the early stages of a program before adequate reserves have been established. A self-insurance program for city school districts seems feasible only when the following rules are adopted and observed:

1. The number of risks to be covered should be sufficiently large to permit the orderly working of the law of averages.
2. The amount of coverage on each risk should be small and fairly uniform. The inclusion of several very large risks will prevent the proper application of the law of averages because a total loss involving one of the larger risks might wreck the whole self-insurance plan.
3. Extremely hazardous risks should be excluded from the self-insurance plan and should be insured with a commercial insurance company.
4. Risks should be independent of one another, so that there is little possibility of losing all insured property in a single fire.
5. Commercial insurance coverage should not be abandoned until adequate self-insurance reserve funds have been provided.

6. In fixing the level of reserves for a self-insurance program, little dependency should be placed on a 10- or 20-year loss record for an individual city.
7. The reserve funds should be adequate to absorb a large loss without bankrupting the city.
8. Any self-insurance fund should not be used for any other purpose.

There are some conflicting points of view concerning the feasibility and desirability of self-insurance whether a state, municipal, or school district program. The main arguments for and against self-insurance are centered around the following issues:

1. Relative Cost of Self-Insurance Programs

   It is pointed out by the proponents of self-insurance that the cost of self insurance can be less than commercial insurance because the operating costs are much less.

   The opponents of self-insurance point out the fact that insurance is a complicated business and when operated without the experience of trained insurance executives, the plan is likely to cost much more. As examples of this cost, they point to some experiences of self-insurance which were unsuccessful.

   Reports from the state-insurance programs indicate a much lower ratio of operating cost to insurance coverage provided. The operating cost of seven of the nine state insurance programs for which these data are available

ranged from 4 per cent to 10 per cent of the premiums as compared to an average operating cost of 50 per cent of earned premiums for all commercial insurance companies for a 23-year period, 1929 to 1953. Many persons who have studied the cost of commercial fire insurance for public schools have concluded that a state system of insurance could operate at considerable premium savings to the public schools.

2. Improvement of Property Accounting in Local School Districts

It is suggested by some that a state insurance program would encourage better property accounting through uniform and systematic policies supervised by the state. The appraisal of school property could be done by a state agent, such as the state engineer's office. However, there is no evidence in the existing nine state self-insurance programs that shows these states have been able to accomplish these needed features in school accounting. That there is need for improvement of property accounting practices among local school districts cannot be denied, but whether this improvement can be encouraged only, or even better, through a state insurance program is not borne out by any objective evidence.

3. Ensuring More Complete Fire Insurance Coverage of Public School Property

It is suggested by some that a state insurance program would probably insure more adequate fire insurance coverage

of public school property. Evidence in the present study does indicate that many districts are under-protected with respect to fire insurance. However, there is no evidence to the effect that a self-insuring program is necessarily the only, or the best way to insure adequate coverage.

4. Removing the Pressure on Local School Boards to Award Their Insurance Business on Some Other Basis than Economy and the Well-Being of School Districts

It is true that school boards are often under considerable pressure to award their insurance business on some other basis than the interests of the school district. A self-insurance program is not the only alternative open to boards wishing to avoid or resist these pressures. Many school districts have adopted policies and practices for awarding their insurance business which protected them against such pressures.

5. Private Enterprise and the Self-Insurance Program

Many who object to self-insurance programs do so on the grounds that such a program represents an invasion of private enterprise. This is an argument raised whenever any public agency embarks upon a project also being carried on by private enterprise, particularly if private enterprise was first in the field or is strong in the field. However,

if it can be assured that states can achieve the necessary protection against loss by fire at lesser cost, by building up their own reserves, there seems to be no reason to deny this economy on the grounds of invasion of private enterprise.

CHAPTER VI

FIRE SAFETY AND INSURANCE COSTS

Fire safety in public school buildings is primarily important because of reducing danger of accident or death among school children and school personnel, but it is also important in reducing the economic loss that destruction of school facilities represents. Since the likelihood of destruction by fire affects fire insurance rates, a program of fire safety has as another consideration the reduction of fire insurance rates, and hence the costs of the fire insurance program.

This chapter considers the extent and nature of losses resulting from school fires, both nationally and in Oregon, the causes of school fires, the steps that may be taken by boards of education to insure greater fire safety in schools, and reduction in fire insurance costs.

Loss of Life in School Fires

Little recent data concerning loss of life in school fires is available. The most recent report of the National Fire Protection Association[1] covering the period 1930 to 1945 indicated however that during that 15-year period, 395 persons had lost their lives in

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[1]National Fire Protection Association. School Fires. Boston, Massachusetts: 1946. p. 17.

31 different school fires. The most destructive of these fires followed an explosion in New London, Texas, on March 18, 1937, resulting in a loss of 294 teachers and students.

A review of the records in the office of the Oregon State Fire Marshall indicates that during the five-year period 1948 to 1953 there were 344 persons killed and 1,117 persons injured by fire in the state of Oregon.[1] None of these was the result of school fires, and so far as the writer could determine, there appears to be no record of any person having lost his life through a school fire in Oregon.

Causes of School Fires

The single most important source of information concerning the causes of school fires are the reports of the National Fire Protection Association. This Association does more than any other single organization to determine the causes of fire and to develop programs of safety aimed at reducing the extent of fire hazard. The most recent of the Association's studies cover the periods 1928-1939, and 1930-1945. The first of these studies included an analysis of 1,000 school fires (fires in educational institutions, including public schools) and the second 1,165 school fires occurring between the years 1930 and 1945. Many of the fires considered in the latter study were also included in the earlier study. Consequently only the findings of the most recent of these two studies is included here.

Of the 1,165 fires, the exact causes of only 565 could be determined and are shown in Table XVIII.

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[1]Tabulated from Annual Reports of State Fire Marshall, Oregon. Robert B. Taylor, State Fire Marshall. Salem, Oregon: 1948-53.

TABLE XVIII

CAUSES OF SCHOOL FIRES[1]
IN 565 SELECTED COMMUNITIES IN THE
UNITED STATES, 1930-45

Causes of Fires	No. Fires	Per Cent
1	2	3
Misuse of electrical equipment or defective wiring	94	16.6
Smoking, matches	68	12.1
Spontaneous ignition	58	10.3
Incendiary	50	8.8
Faulty heating equipment	47	8.3
Chimneys, flues	36	6.4
Flammable liquids, vapors	28	4.9
Open flames, sparks	25	4.4
Rubbish	23	4.1
Explosions	17	3.0
Lightning	15	3.0
Exposure	15	2.7
Sparks on roof	15	2.7
Torches, welders, etc.	11	1.9
Gas and appliances	9	1.6
Hot ashes, coals	9	1.6
Oil burners	9	1.6
Combustibles near heaters	5	.9
Sparks, friction	5	.9
Grease	3	.5
Electrical power appliances	2	.3
Fireworks	1	.2
Total	565	100.0

[1]National Fire Protection Association. 1946. Op. cit. p. 28.

These data show that the most frequent causes of fire were the misuse of electrical equipment or defective wiring and careless handling of matches and cigarettes. Improper installation, handling, and upkeep

of heating equipment, chimneys, and flues accounted for 14.7 per cent of the school fires. No less than 40 of the fires studied were caused from faulty disposal of waste materials, and careless piling of rubbish near heating equipment.

Data from the annual reports of the Oregon State Fire Marshall indicate that fire losses among Oregon educational institutions result from fires which arise from the same causes as those shown in the nation-wide tabulation. Table XIX shows that in Oregon, for the period 1948-52, the most important known causes of fire in educational institutions were (1) hot metals, including electrical devices (17.5 per cent of total loss), and (2) electricity or defective wiring (17 per cent of total loss). Overheated and/or defective furnace, hot ashes, and coals, and open fires accounted for 10 per cent of the losses, as did matches and careless smokers. More than a fourth of the fires reported in Oregon educational institutions were from unknown and indeterminable causes.

No record is available to show the number of cases in which faulty installation of heating facilities was the cause of fire, but an examination of school building fire insurance rating sheets reveals that many school districts are paying extra premium rates as a result of penalties placed on unsafe heating facilities. It is safe to say that most school fires are the result of carelessness and neglect and a majority of them could have been prevented if proper attention had been given to fire safety.

TABLE XIX

CAUSES OF FIRES IN
OREGON EDUCATIONAL INSTITUTIONS
1948-52

Causes of Fires	Amount of Loss 1948-52	Per Cent of Total Loss
Hot metals, including electrical devices	$ 227,300	17.5
Electricity or defective wiring	209,120	17
Overheated and/or defective furnace Hot ashes and coals, and open fires	122,200	10
Matches and Careless Smokers	123,000	10
All other known causes	199,500	17.2
Unknown	349,000	28.3
Total	$1,230,220	100.0

Origin of School Fires

Two questions frequently considered in regard to fire prevention are: Where do the fires originate? What are the danger areas? The National Fire Protection Association study, previously referred to in this chapter, provides some interesting data relating to these questions. Of the 1,165 school fires included in the study, the place of origin was definitely known in the case of 613. These data (Table XX) reveal that the two areas where most fires start are: student areas (36.5 per cent) and service areas (36.1 per cent).

No comparable data are available for Oregon.

Insurance Penalties

An investigation of fire insurance rating sheets shows that a large part of the premium rate is made up of penalties levied because of fire hazards found in the structure of the building and because of the lack of fire protection.

The most common types of correctible penalties are either structural (i.e. lack of firewalls, wood shingle roofs, skylights, dormer windows, floor openings, etc.) or other deficiencies (i.e. defective wiring, unprotected heating units, broken plaster, lack of property storage, or accumulation of combustible materials in or near the building). These latter deficiencies result in penalties which are known in insurance literature as "aftercharges."[1]

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[1]Viles defines aftercharges as follows: "After all of the other penalties are made and credits allowed, certain penalties may be added for fire hazards that are not covered in other penalties. These added penalties are called aftercharges. These charges are usually made for fire hazards that could be removed without much difficulty. In general, these penalties are made for hazards that accumulate with poor insurance and poor housekeeping methods."
Viles, N. E. Improving the Insurance Program in the Local School Districts. Doctoral Dissertation. University of Missouri. 1934. p. 55.

TABLE XX

ROOMS WHERE FIRE ORIGINATED
IN 613 SCHOOL FIRES IN THE UNITED STATES
1930-45

Areas	No. Fires	Per Cent
1	2	3
Students' Areas		36.5
Classrooms	46	
Workshops	40	
Auditorium, Chapel	37	
Laboratories	29	
Dormitories	27	
Gymnasiums	16	
Living Rooms	10	
Washrooms	9	
Office	6	
Library, Reading Rooms	3	
Studio	1	
Service Areas		34.1
Basement	87	
Boiler Room	51	
Closet	25	
Storeroom	19	
Kitchen	15	
Waste Chute	6	
Locker	3	
Coal Bin	2	
Organ Blower Room	1	
Outside		12.4
Roof	48	
Yard	16	
Garage, Barn	6	
Outbuildings	6	
Domestic's Quarters		.5
Miscellaneous Known		16.5
Attic, Roof Space	46	
Hallways	22	
Belfry, Towers	6	
Projection Room	4	
Partitions	3	
Chimney	2	
Elevator Well	2	
Annex	1	
Others	15	
Totals	613	100.0

[1]National Fire Protective Association. Op. cit. p. 27.

Viles[1] found that 30 per cent of the 500 grade and high school buildings studied in Missouri were penalized because of removable fire hazards. The average penalty for each of the buildings was 4.42 cents per $100 of insurance carried. The following example of building penalties was given:

> The penalty for the use of hollow tile is quite heavy and school boards may often profit by a study of insurance cost on such walls before a building is erected. In one Missouri town, the board proposed to erect walls with hollow tile backing in making an addition to the high school building. Since the addition had six faces and the base rate was fifty-four cents, the additional rate would have been about nineteen cents. The building was to be insured for about $160,000 and the penalty because of the hollow tile would have averaged about $250 per year on three-year policies. Since the contractor agreed to erect solid brick walls for an additional sum of $1100, these were erected, and the board was able to save about $250 per year on insurance cost.[2]

Smith[3] made a case study of eight city school districts in New Jersey to determine how to reduce insurance cost. Among the cases studied, he pointed out the following savings:

City A School No. 2. A 3.8 cent charge was made because of broken plaster. The building was insured for $95,000. An annual saving of $36.10 would result from repair of the plaster.

School No. 4. An annual saving of $78.40 would result if the insurance policy were corrected to proper rate.

School No. 5. A 5 cent charge was made because metal ventilating flues terminated in the attic. A saving of $32.80 in annual premiums would be achieved if this hazard were removed.

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[1]Viles, N. E. On. cit. p. 39.

[2]Ibid. p. 39.

[3]Smith, Harvey A. Economy in Public School Fire Insurance. Teachers' College. Columbia University. Contributions to Education, No. 428. 1930. p. 24.

School No. 6. An additional 10 cents was charged because of unsafe storage of gasoline. An annual saving of $135 would result from the removal of the gasoline cans from the building.

School No. 8. An annual saving of $500 could be achieved by installing automatic sprinklers in the manual training room. Cost of installation would be approximately $200.

City B An annual saving of $58.99 would be achieved by adjusting all schools to proper coinsurance coverage.

Building No. 13. An annual saving of $424.73 would result from installing automatic sprinklers. Cost of installation of sprinklers would not exceed the annual saving on premiums.

City E School No. 9. An annual saving of $69.12 would result from repairing a defective chimney.

School No. 13. An annual saving of $36.96 would result from repairing a defective gas connection.

School No. 20. An annual reduction in premiums of $145.80 would result from cleaning up the building and placing metal under stoves.

School No. 40. A penalty of 10 cents was assessed because of the absence of fire extinguishers. An annual saving of $250 would result if extinguishers were installed.

City G A possible $480 annual saving would result from an appraisal of school property and an adjustment of the insurance program in line with these values.

City H An annual saving of $74.56 would result from writing insurance policies for a five-year term.

Beach[1] reported that the Oyster Bay, New York, school system reduced fire insurance premiums by more than $875 by making changes which cost the school only $600. The following changes were reported: (1) Installation of fire doors to a boiler room saved $242; (2) Isolation of the manual training rooms saved $264; (3) Installation of adequate fire extinguishers saved $238; and (4) Repair of electrical defects saved $137.

In the present study of Oregon public school fire insurance programs, it was found that many school districts had made considerable savings in insurance premiums by removing certain fire hazards or by installing facilities which provide better fire protection. Illustrative of the Oregon public schools which have made such savings are:

Springfield As was indicated in Chapter IV of this study, the Oregon Fire Insurance Rating Bureau recognizes fire protection facilities and gives a lower fire insurance rate where these facilities exist. Knowing this to be true, the school district purchased a fire truck through the Oregon Surplus Property Section. The truck was then loaned to the Springfield City Fire Department, which contracted to provide fire protection for all of the Springfield Public Schools, including those which are outside of the city limits. This one piece of equipment saved enough premium costs to pay for the truck in three years.

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[1]Beach, Fred F. "Saving Thirty Per Cent on Insurance." American School Board Journal. Vol. LXXXII. June, 1931. p. 59.

Oakridge The Oakridge school district hired an appraisal firm in 1954 to appraise all of its school property and equipment to determine the insurable value. At the time of the appraisal, the insurance rating sheets for each school building were checked and many conditions causing penalties were removed. Through the removal of the penalties, a lower insurance rate was secured. The saving on insurance premiums enables the school district to carry the needed additional coverage at no additional cost to the school district.

Creswell One of the most common causes for penalties seems to be the use of wooden shingles. In 1952, the Board of Education of Creswell Union High School, Creswell, Oregon, was planning a new addition to the high school building, which would raise the insurable value of the structure to $220,000. The main classroom section of this building was constructed in 1941 with a cedar shingle roof, with a built-up composition roof on the gymnasium and library sections. The new addition was also to have a built-up composition roof which carries a lower premium rate than does the cedar shingle roof. After discussing the problem of insurance cost with the local insurance broker, it was discovered that the school district could replace the cedar-shingled roof at a saving of $250 per year in premium rates. The new roof, with a 10-year maintenance guarantee, cost the school district $1,100. Over a 10-year period the annual saving of $250 on insurance premiums will pay for the new roof and will result in an additional saving of $1,400.

Arlington In 1950, the Gilliam County School Board submitted the plans for the new high school at Arlington to the Oregon Insurance Rating Bureau and learned that they could save $150 annually in insurance premiums by placing the furnace room in a location away from the classroom unit. The extra cost involved in this change was approximately $800.

Oswego This school district has saved approximately $750 annually in insurance premiums by requiring concrete floors in the construction of two elementary buildings.

Portland Portland Public School District has saved upward of $4,000 annually in insurance premiums as a result of structural changes which have been made since 1948. These improvements were all made in the older buildings, which have continued in use. Among the changes which brought about these savings were: improved electrical wiring, fire-resistive roofs, and the improvement of storage facilities.

Ontario School District 8-C was able to save more than $200 annually as a result of the city's placing a fire hydrant with a four-inch main near the school.

The nature of insurance premium savings available to school districts is further illustrated by noting some of the reductions in premiums resulting from reduction of specific hazards, as reported by the Oregon Insurance Rating Bureau:

1. A 5 per cent reduction in insurance rates may be achieved placing the heating unit in a separate structure.
2. A 5 per cent reduction in insurance rates would result from the use of solid concrete and plaster walls.
3. The use of concrete floors rather than wooden floors would result in a 5 per cent reduction in rates.
4. A single-story building with no basement would result in 5 per cent reduction in rates, compared with a comparable multi-story building.

Further savings may be made by requiring fire-resistive roofs on buildings, fire-proof exterior finishes, firewalls, and the use of fire doors. Some of the more common penalties are levied against schools with wood shingle roofs, firtex walls, and with inadequate fire protection facilities furnished by the city or fire district.

It is apparent from the foregoing illustrations that school districts can achieve substantial savings in insurance premiums and provide safer facilities for children by attention to structural and maintenance details in the planning and maintenance of school buildings.

Planning Fire Safety

Planning an adequate fire safety program for a school building begins with the development of the educational and structural specifications for the building. For, as the specific illustrations just cited have shown, greater safety for children, and consequent savings in insurance premiums may be achieved by conforming in the planning of the structure with what is known about fire safety in the school building.

During the planning stages of any school building, there are numerous opportunities for school boards to avail themselves of expert help to insure that they are incorporating in the plans the features which will insure the greatest safety within the limits imposed by the other factors such as cost. Some of the agencies to which the board of education may turn are specified in the State Standards or by law.

The Standards for Public Secondary Schools adopted by the State Board of Education, and therefore binding on the local school districts, requires building plans to be submitted for approval to the State Superintendent of Public Instruction, as follows:

> Architectural plans for all new construction, whether it is a new building, additions to old buildings or remodeling, shall be presented to the Superintendent of Public Instruction before calls for bids on the construction are authorized.[1]

While the specialist in school buildings in the State Superintendent's Office is not primarily concerned with safety, he nonetheless has interest in it, as he considers the instructional soundness of the plans.

The official primarily responsible for the approval of building plans with respect to fire safety is the State Fire Marshall. He has responsibility for inspecting and approving building plans with respect to exits and fire escapes. He also has general responsibility for the elimination of fire hazards in public school buildings.

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[1]Putnam, Rex. Standards for Public Secondary Schools in Oregon. Salem, Oregon. 1951. p. 5.

A third source of help in this regard, and one often overlooked by school boards, is the Oregon Insurance Rating Bureau. Besides the general services of the Bureau, referred to in earlier chapters of this study, the Bureau will also check proposed building plans for fire risks, and will supply the property owner with suggestions concerning ways in which the structural features may be altered to provide greater fire safety and consequently lower insurance rates. When asked whether they submitted their building plans to the Rating Bureau prior to construction 52 per cent of 88 reporting first class districts, 29 per cent of 157 reporting second class districts, and 17 per cent of the 151 reporting third class districts stated that they have done so(Table XXI). This is a service of considerable value to public schools. It is made available either directly or though the local insurance agent.

Additional sources of assistance in planning for fire safety are the National Board of Fire Underwriters, and the National Fire Protection Association, which have for many years been studying problems of school fire safety. Under the direction of the Committee on Safety to Life of the National Fire Protection Association, there has been developed a Building Exits Code[1] which outlines the fundamental requirements necessary for reasonable safety to life in school buildings. These recommendations were developed by a representative committee of experts including fire protection authorities, architects, engineers,

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[1] Building Exits Code. National Fire Protection Association. Boston 10, Massachusetts: 1943. p. 512.

TABLE XXI

OREGON SCHOOL DISTRICTS SUBMITTING PLANS FOR NEW BUILDINGS TO INSURANCE RATING BUREAU PRIOR TO CONSTRUCTION

District	Number Reporting	Districts Not Submitting Plans		Districts Submitting Plans		Districts Not Answering
		No.	Per Cent	No.	Per Cent	No.
	1	2	3	4	5	6
First Class	88	38	43	46	52	4
Second Class	157	79	50	45	29	33
Third Class	151	46	30	25	17	80

and school administrators, which found from a study of school fire experiences that substantially all of the major losses of life in school fires in the past have resulted from violations of one or more of the cardinal principles of school safety as outlined in the Building Exits Code.

In considering the reduction of fire insurance penalties in existing structures, information is available from all of the sources just cited. The Oregon Insurance Rating Bureau, for example, systematically appraises all new structures in order to establish fire insurance rates. All deficiencies of the structure are considered, such as exposures (high-rated risks near the school), location in the city, water mains and fire hydrants, fire-fighting equipment in the building itself, range of the buildings (whether buildings are connected), automatic fire doors, distance between buildings, and all other matters which may affect the susceptibility of the structure to damage or destruction by fire. The Rating Bureau will make available to local school districts rating sheets for each of the school district's buildings, providing the board of education requests it. Data developed in this study indicate that many school districts, particularly the smaller ones, are apparently unaware of the desirability of securing these rating sheets. Only 74 per cent of 88 reporting first class districts, 33 per cent of 157 reporting second class districts,and 16 per cent of 151 reporting third class districts indicated that they do so (Table XXII).

TABLE XXII

OREGON SCHOOL DISTRICTS OBTAINING RATING SHEETS FROM THE INSURANCE RATING BUREAU

District	Number Reporting	Districts Obtaining Rating Sheets		Districts Not Obtaining Rating Sheets		Districts Not Answering
		No.	Per Cent	No.	Per Cent	No.
	1	2	3	4	5	6
First Class	88	65	74	14	16	9
Second Class	157	52	33	99	63	6
Third Class	151	24	16	90	60	37

A Rating Bureau representative will, upon request of the board of education, revisit school buildings for a check of insurance rates if the board has corrected some of the deficiencies previously noted by the Bureau. This, too, is a service that school districts should be quick to take advantage of as they endeavor to eliminate the conditions giving rise to insurance premium penalties.

An additional guide for the local school board in improving its fire safety plan is the self-inspection blank which was developed by the National Board of Fire Underwriters and which has been approved and adopted by the Association of School Business Officials of the United States and Canada. This blank has been included on pages 184 to 186 of this study. It is highly recommended as a systematic guide to the appraisal of the fire safety plan of the school district.

The important elements of a successful school fire safety program are identified by Viles[1] as follows:

1. An awareness of the importance of fire safety in school.
2. A knowledge of the nature and effect of fire.
3. The ability to recognize fire hazards.
4. Some knowledge of the procedures for eliminating fire hazards, and for detection and extinguishing.
5. Untiring vigilance by all who have concern or responsibilities in these areas.
6. A school or school and community organization to maintain fire safety.

Where the safety of children is concerned, expense of improving the fire safety of a building should not be an issue. However, with

SELF-INSPECTION BLANK FOR SCHOOLS

Prepared By

THE NATIONAL BOARD OF FIRE UNDERWRITERS

Chicago New York San Francisco

Approved and Adopted by

THE ASSOCIATION OF SCHOOL BUSINESS OFFICIALS OF THE UNITED STATES AND CANADA

Endorsed by the
INTERNATIONAL ASSOCIATION OF FIRE CHIEFS

If precautions are taken to minimize the danger of fire and to provide for safety in case fire occurs, real progress will be made in safeguarding life and protecting property. Intelligent thought and care in practice can eliminate practically all fires within schools.

INSTRUCTIONS

Inspection to be made each month by the custodian and a member of the faculty at which inspection only Items 1 to 20 need be reported. At the quarterly inspection, a member of the fire department should accompany the above inspectors, and the complete blank should be filled out. The report of each inspection (monthly and quarterly) is to be filed with the Board of Education or School Commissioners.

Questions are so worded that a negative answer will indicate an unsatisfactory condition.

Date_____

Name of School_____City_____

Class: Elementary_____Junior High_____Senior High____

Capacity of School?_____Number now enrolled_____

1. Are all exits doors equipped with panic locks?_____Are these tested each week to insure ease of operation?_____Do these lock securely so that additional locks, bolts or chains are not necessary?_____Are such additional locks open whenever building is in use?_____
2. Are all outside fire excapes free from obstructions and in good working order?_____Are they used for fire drills?_____
3. Is all heating equipment, including flues, pipes and steam lines:---
   (a) in good serviceable condition and well maintained?_____
   (b) properly insulated and separated from all combustible material by a safe distance?_____

4. Is coal pile inspected periodically for evidences of heating?_____
5. Are ashes placed in metal containers used for that purpose only?____
_____
6. Is remote control provided whereby oil supply line may be shut off in emergency?_____
7. Where is outside shut-off valve on gas supply line?_____
_____
_____
8. Check any of the following locations where there are accumulations of waste paper, rubbish, old furniture, stage scenery, etc., and explain under remarks:---attic, basement, furnace room, stage, dressing rooms in connection with stage, other locations
_____
9. Is the space beneath stairs free from accumulations or storage of any materials?_____
10. What material or preparation is used for cleaning or polishing floors?
_____
Quanity on hand?_____Where stored?_____
11. Are approved metal cans, with self-closing covers or lids, used for the storage of all oily waste, polishing clothes, etc.?_____
12. Are approved metal containers with vapor-tight covers used for all kerosene, gasoline, etc., on the premises?_____Why are such hazardous materials kept on the premises?_____
_____
13. Are premises free from electrical wiring or equipment which is defective?_____
(If answer is NO, explain under REMARKS.)
14. Are only approved extension or portable cords used?_____
15. Are all fuses on lighting or small applicance circuits of 15 amperes or less capacity?_____
16. Are electric pressing irons equipped with automatic heat control or signal and provided with metal stand?_____
17. Are sufficient fire extinguishers provided on each floor so that not over 100 feet travel is required to reach the nearest unit?_____
In manual training shops and on stage, 50 feet?_____
18. Have chemical extinguishers been recharged within a year?_____
Is date of recharge shown on tag attached to extinguisher?_____
19. Is building equipped with standpipe and hose having nozzle attached?
_____
20. Is a large woolen blanket readily available in the domestic science laboratory for use in case clothing is ignited?_____

Remarks (Note any changes since last inspection)

The following items to be included in each quarterly inspection:---

21. Building construction: Walls_____Floors_____Roof_____
    No. stories_____No. classrooms_____
22. Which sections of buildings are equipped with automatic sprinklers?
    _____
23. Are there at least two means of egress from each floor of the building?_____
    Are these so located that the distance measured along the line of travel does not exceed
    From the door of any classroom, 125 feet?_____
    From any point in auditorium, assembly hall or gymnasium, 100 feet?_____
24. Are all windows free from heavy screens or bars?_____
25. Do all exit doors open outward?_____
26. Are all interior stairways enclosed?_____
27. Are windows within 10 feet of fire escapes glazed with wire glass?
    _____
28. Are manual training, domestic science, other laboratories and the cafeteria so located that a fire in one will not cut off any exit from the building?_____
29. Is a smoke-tight projection booth, built of incombustible materials, and vented to the outside, provided for the motion picture machine?
    _____
30. Are heating plant and fuel supply rooms cut-off from the main corridors by fire-resistant walls, ceiling and doors?_____
31. Do all ventilating ducts terminate outside of building?_____
32. State type of construction of any temporary buildings in school yard_____
33. Is nearest temporary building at least 50 feet from main building?
    _____
34. How often are fire drills held?_____Average time of exit?_____
35. Are provisions made for sounding alarm of fire from any floor of building?_____
36. Give location of nearest city fire alarm box_____
    _____
    How far distant from the premises?_____

Remarks

Inspector_____Title_____

Inspector_____Title_____

Inspector_____Title_____

respect to some deficiencies not considered particularly dangerous, and yet resulting in an insurance penalty, the question sometimes arises as to whether there is justification in investing the funds to correct the deficiency if the insurance premium reduction will be only very slight. Several rules of thumb have been suggested as guides to boards of education in this matter, of which Hunn's is illustrative. He suggests that:

> Usually it will pay to make the change if the saving in the annual premium is approximately twenty per cent of the cost of making the change....It should be borne in mind that the inspection bureau makes the rates and that it is therefore essential that that body be satisfied with what is done.[1]

It should be borne in mind that fire safety does not necessarily involve great expense. It does involve intelligent thought and action and a systematic approach to fire safety planning extending from the planning of a building to its maintenance and upkeep throughout its life.

Summary

Fire safety in public school buildings is primarily important in reducing danger of accident or death among school children and school personnel. It is secondarily important in that it reduces the economic loss resulting from damage or destruction of school buildings and equipment.

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[1]Hunn, F. L. "Economizing on School Insurance." School Executive, 61:29. September, 1941.

The extent and nature of school losses resulting from school fires, both nationally and in Oregon, the steps that may be taken by boards of education to insure greater fire safety in schools, and reduction of insurance cost were considered in this chapter.

The best source of information concerning the cause of school fires are the reports of the National Fire Protection Association. The records of both national and Oregon school fire losses show that most fires are the result of carelessness and neglect and a majority of them could have been prevented if proper attention had been given to fire safety.

An investigation of fire insurance rating sheets shows that a large part of the premiums paid are made up of penalties levied because of fire hazards found in the structure of the building and because of the lack of fire protection.

It is apparent from data presented that many school districts can achieve substantial savings in insurance premiums and provide safer facilities for children by attention to structural and maintenance details in the planning of school buildings.

The Oregon Insurance Rating Bureau will check building plans and make suggestions concerning ways which the structural features may be altered to provide greater fire safety and lower insurance rates. The Bureau will also send the rating sheet on existing school buildings upon request. These sheets show the penalties assessed against each building. Data presented in this chapter indicate that many school

districts in Oregon, particularly the smaller ones, do not avail themselves of these services provided by the Bureau.

Additional guides for the local school in improving its fire safety program are available through the National Board of Fire Underwriters, which has provided a self-inspection blank to guide school administrators in providing fire safety in the schools.

CHAPTER VII

SUMMARY AND RECOMMENDATIONS

The value of public school buildings and equipment in Oregon in 1954 was $200,000,000. Although there is no state law requiring that local boards protect the district against loss of this investment by fire, local school boards must consider this one of their important responsibilities.

Problem

The chief purpose of this study was to determine to what extent and how effectively fire insurance protection is being provided by Oregon school districts and in what ways this protection might be secured more effectively and more economically. It involved the development of answers to the following specific questions:

1. What are the present policies and practices of Oregon school boards in administering the fire insurance program?
    A. What provisions are made for administrative control of the fire insurance program?
    B. What provisions are made for maintaining an adequate appraisal of school property and equipment?
    C. What provisions are made for the selection of insurance companies and agencies with which to contract for insurance?

D. What provisions are made for adapting the insurance program to the needs of the individual local school district?

2. How are fire insurance rates in Oregon determined, and to what extent do insurance rates for public school buildings seem reasonable?
3. To what extent have self-insurance programs, particularly state programs, entered the insurance field, and what has been their experience?
4. To what extent do fire hazards affect fire insurance rates and how may local school boards reduce these rates by reducing fire hazards?

Procedure

Data for this study were secured from several sources as follows:

1. A questionnaire returned by 396 of the 794 districts in Oregon.
2. The 1953 audited annual reports of each district filed in the Bureau of Audits in Salem.
3. State Fire Marshall's Reports from 1948 to 1953.
4. Oregon Insurance Rating Bureau statistics for 1948 to 1952 obtained in the Bureau office in Portland.
5. Oregon Mutual Insurance Association, McMinnville.

The first step in this study was a survey of public school fire insurance studies and other pertinent literature on fire insurance.

The second step was a pilot study of public school fire insurance in Lane County and the development of a questionnaire for use in the state-wide study. Oregon laws were examined to determine the legal requirements for the operation of insurance companies. Court decisions were also checked to determine the legal requirements of school boards and school officials in regard to the protection of school property. Finally, the Oregon Standard Fire Insurance Policy was analyzed in order to show the need for school appraisals and for adequate accounting of school property and equipment.

The basic plan for this study was presented to the Oregon Superintendents' Association at their annual meeting in Coos Bay in August, 1953. The study was also cleared with the state school building consultant in Salem, and the support of the State Department of Education was obtained.

In May, 1954, the questionnaire was sent to all superintendents of first and second class school districts, all school clerks of third class districts, and to the county school superintendents. The questionnaire was completed and returned by 91 per cent of the first class districts, 86 per cent of the second class districts, and 30 per cent of the third class districts. Of the 31 county school superintendents (not including county units), 29 returned the questionnaire and 17 wrote personal letters expressing their approval and support of the study.

In June, 1954, the audited reports of each school district in the state, on file in Salem, were checked to supplement the questionnaire

data concerning the value of buildings, equipment, the amount of fire insurance carried and its cost to the local districts.

From data on file in the Oregon Insurance Rating Bureau in Portland and from discussions with officials of the Bureau, the writer obtained information and data concerning the costs of operation of stock insurance companies, premiums collected, and indemnities paid school districts for the five-year period 1948-52. From this same source, information was secured concerning the operation of the Rating Bureau and its functions, both the services offered local school districts and those offered insurance companies.

Similar data with respect to mutual insurance was secured from the Oregon Mutual Insurance Association Headquarters in McMinnville.

Findings

The total investment in public school buildings and equipment in the United States exceeded $7,500,000,000 in 1949-50 and has increased by more than $500,000,000 each year since. To protect this investment in school property, taxpayers spent over $30,000,000 for insurance in 1952. Of the amount expended, the greater portion was for fire insurance.

Oregon public school buildings and equipment are valued at more than $200,000,000. This investment is insured for $150,000,000 at an annual cost in premiums of $1,200,000 in 1953.

In many communities, the capital invested in school buildings and equipment, together with the cost of operation, constitutes the

community's single largest economic enterprise. School boards generally make provision for the replacement of any portion of this investment damaged or destroyed by fire in one of the following ways:

1. Insurance with stock or mutual companies.
2. Self-insurance by establishing a reserve fund.
3. Replacement without insurance or reserve funds. Only the very largest school districts have the conditions which permit this practice.

An analysis of the data accumulated in this study in an effort to find answers to the specific questions noted on page 190 revealed the following:

1. Although the law is silent in regard to the obligation of school officials to insure school property, school boards have considered protection of the school district investment by purchasing fire insurance a prudent measure, and, consequently, most public school property in Oregon is insured to some degree.
2. Administrative responsibility for the fire insurance program in Oregon school districts is placed variously. With two exceptions, school boards in first class districts stated that the superintendent has been delegated this responsibility. In these two exceptions, the business manager has been assigned the responsibility. In the smaller districts, particularly where there is no administrative head of the school system, some boards not only determine policy, but

they administer the program. Some of these boards seek the active assistance of a local insurance agent or representative of the agents' association who serves the board in a semi-administrative capacity.

3. Data from the 396 reporting districts indicated that some Oregon school districts have no adequate comprehension of what constitutes insurable value in school buildings, and hence can have no adequate appreciation of the extent of insurance that should be carried. This may account in part for the extent of over-insurance and under-insurance of public school property in Oregon. Forty-two per cent of the reporting districts defined insurable value as replacement value less exclusions and depreciation, 22 per cent as original cost less depreciation and 9 per cent as the original cost.

4. Important to the maintenance of an adequate insurance program is an up-to-date appraisal of property to be insured, prepared by a competent person. An analysis of practices in Oregon school districts indicates that many school districts do not maintain up-to-date appraisals. Seven of the first class districts (8 per cent of those responding) reported a continuing appraisal, while 43 per cent of the first class districts, 39 per cent of the second class districts, and 27 per cent of the third class districts reporting in this survey make annual appraisals.

An additional 19 per cent of the first class districts, 28 per cent of the second class districts, and 9 per cent of the third class districts report an adjustment of appraisals only every two years. If the districts reporting adjustments in appraisals only every three or every five years are lumped together, 21 per cent of the first class, 20 per cent of the second class, and 20 per cent of the third class districts are included.

Since the validity of the appraisal for insurance purposes is dependent upon the skill of the person making the appraisal, it is of importance to local school districts that well-qualified persons be given this responsibility. Appraisal firms are generally thought of as providing the most reliable appraisals of buildings and equipment. Only 34 of 396 reporting school districts indicated that an appraisal firm is employed by them. One hundred four districts (33 per cent of those reporting) stated that insurance company appraisers provide this service, while 46 districts report that the superintendent of schools does the appraising. In almost half of the reporting districts (184), the appraisal function is reported as being performed by the board of education, usually without outside assistance.

5. Boards of education are often under considerable pressure to grant their insurance business to particular agents.

The more able school boards have developed safeguards against these pressures and have incorporated them in written policies covering the bases of selection of insurance companies for placement of their business. Data from Oregon indicates that second and third class school districts generally have no such written policies, and only 26 per cent of the 88 first class districts report written policies covering this matter.

6. As the bases for awarding insurance contracts, the services rendered by the insurance company were reported by 50 per cent of the first class districts and 29 per cent of the second class districts and 36 per cent of the third class districts, respectively, as being of importance.

   Personal acquaintance with the agent was reported as being a factor of importance among a larger percentage of the third class districts (19 per cent) than either the second class (13 per cent) or first class districts (8 per cent).

7. The state of Oregon has adopted and placed in Oregon statutes what is known as the Oregon Standard Fire Insurance Policy, which is the only insurance policy in its entirety written into the law of this state. Endorsements to this standard policy permit its adaptation to the needs of individual school districts. The endorsement most often reported in use by Oregon school districts is the extended coverage

endorsement which provides coverage for direct loss by windstorm, hail, explosion, riot, riot attending a strike, civil commotion, aircraft, vehicles, and smoke. Seventy-five per cent of the reporting districts are using this endorsement.

Coinsurance is the second most often used endorsement by Oregon school districts, being reported by 69 per cent of the first class districts, 40 per cent of the second class districts and 20 per cent of the third class districts. Coinsurance encourages local districts to maintain greater insurance coverage on school property, since under its provisions, the higher the ratio of insurance to insurable value, the lower the premium rate per $100 of insurable value.

8. Provident school boards have learned that given amounts of insurance can be purchased for less if the insurance contract is drawn for longer than one year. Normally policies in Oregon are written for one, three, or five year terms. The annual cost of a given amount of fire insurance purchased on a five-year term contract is 20 per cent less than the same amount of insurance purchased on a one-year contract. This is of significance in the prudent management of school board funds. Of the 396 Oregon school districts reporting, 74 per cent purchase fire insurance on a five-year contract, 20 per cent on a three-year plan, and only 6 per cent on a

one-year plan. It would appear that more than one-fourth of the school districts in this state are not following the best business practices in this respect.

9. The two most important factors affecting fire insurance rates in Oregon are: (1) the class of property to be insured, and (2) the insurance class of the city's fire protection facilities. Of these two, the first is the more important. Fixing rates at a level which will serve equally well the interests of the insurance company and of those it insures is a difficult task. The fixing of variable rates in acordance with the differing risks represented by various buildings so that each class of risk pays its fair share for the protection it receives is a problem of considerable importance, as well. Particular classes of policyholders have often been concerned as to whether the rates for insurance on their property were not too high in comparison with the risks involved. This has long been a concern with school boards and others concerned with the management of the school dollar. A comparison of the cost-loss ratio for schools (ratio of reimbursement received from insurance companies to premiums paid) compared with cost-loss ratios for other property has often been used as one measure of the relative justice of the insurance rates charged school districts.

During the past 35 years several studies of these cost-loss ratios have been made, both nationally, and in individual states. These studies have concluded, almost universally, that school insurance rates were higher than warranted by fire losses suffered. The National Association of Public School Business Officials found that for the periods 1921-30, 1931-37, and 1938-45, the average cost-loss ratios for a sampling of public school districts throughout the United States were 28.7 per cent, 26.9 per cent, and 32.9 per cent. On the basis of these ratios, the Association concluded as follows:

> The fire insurance business of city school districts yields stock companies upward of ten million dollars in premiums collected annually. Their charges for this business are exorbitant. They do not intend to do anything about it. School districts should seek more economical sources for protection. There are other ways that are safe. . .[1]

Studies of cost-loss ratios in New York, Ohio, Georgia, and Colorado have shown substantially the same picture as the foregoing national studies. An analysis made in this study of the experience in Oregon for the period 1948-53 indicates that the cost-loss ratio for public schools of the state was only 25 per cent, and that for 1953 it was only 13 per cent.

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[1]National Association of Public School Business Officials, Insurance Committee: Insurance Committee Report on School Fire Insurance, 1938-1945, Kalamazoo, Michigan: The Association, 1948. pp. 15-16.

These may be compared with the cost-loss ratios of 50 per cent for all property insured by all insurance companies of the United States as reported by Best for the period 1929-53. It will also be noted that the cost-loss ratios for Oregon schools are lower than those found in the three national studies referred to previously.

One other measure of the risk represented by school buildings is that represented by a comparison of the ratio of fire losses to sound value of buildings. According to data from the State Fire Marshall's Office for the period 1948 to 1953, inclusive, this ratio for educational institutions in Oregon was 4.6 per cent compared with 6.3 per cent for mercantile and office buildings for the same period. Best's Insurance Guide, an authoritative publication in the field of insurance, asserts that when the ratio of fire losses on a specified class of buildings to sound value of such buildings is less than 6 per cent, that class of buildings is thought of as being a preferred risk.

10. The foregoing information relative to cost-loss ratios has led in some instances to a reduction in insurance rates for public school buildings. Where such reductions could not be obtained, it has led in other instances to an effort to develop a self-insurance program.

Nine states are currently operating state insurance funds. North Carolina insures only public school property

through its state fund; four states (Alabama, North Dakota, South Carolina, and Wisconsin) insure all state property as well as local school district property; and the remaining four states (Florida, Kentucky, Michigan, and Oregon) provide for insurance of state buildings but do not include those of public school districts.

The following nine states have abandoned state insurance programs: Colorado, Iowa, New Jersey, Vermont, Georgia, Rhode Island, Tennessee, Minnesota, and Montana.

An analysis of the experiences of the existing nine state insurance programs indicates that only Oregon and Michigan have suffered losses which could not be paid from the accumulated reserves. Most of the existing state programs have provided sufficient insurance coverage for the buildings covered at less than the cost of commercial insurance. In Florida and Kentucky where premium rates are approximately the same as for commercial insurance, substantial profits have accumulated.

Some city school districts have established self-insurance programs, although the exact number at present is not known. It would be small, however, in comparison with the number covered by commercial insurance. As far as could be determined, Portland is the only Oregon school district which has attempted a self-insurance program. It was abandoned after a seven-year trial. It should be noted, however, that the National

Association of Public School Business Officials' studies did report the successful operation of self-insurance programs in some city school districts.

Self-insurance programs for local school districts are hazardous because of the possibility of heavy losses in a single year, especially in the early stages of the program before adequate reserves have been established. Such a program would seem feasible only when the following policies are observed:

(1) The number of risks to be covered should be sufficiently large to permit the orderly working of the law of averages.

(2) The amount of coverage on each risk should be small and fairly uniform. The inclusion of several very large risks will prevent the proper application of the law of averages because a total loss involving one of the larger risks might wreck the whole self-insurance plan.

(3) Extremely hazardous risks should be excluded from the self-insurance plan and should be insured with a commercial insurance company.

(4) Risks should be independent of one another, so that there is little possibility of losing all insured property in a single fire.

(5) Commercial insurance coverage should not be abandoned until adequate self-insurance reserve funds have been provided.

(6) In fixing the level of reserves for a self-insurance program, little dependency should be placed on a 10- or 20-year loss record for an individual city.

(7) The reserve funds should be adequate to absorb a large loss without bankrupting the city.

(8) Any self-insurance fund should not be used for any other purpose.

There are some conflicting points of view concerning the feasibility and desirability of self-insurance, whether a state, municipal, or school district program. The main arguments for and against self-insurance appear to be centered around the following issues:

(1) Relative cost of self-insurance

It is pointed out by the proponents of self-insurance that the premiums under self-insurance can be less than for commercial insurance because operating costs can be less. Opponents of self-insurance point out that insurance is a complicated business and when operated without the experience of trained insurance executives, the plan is likely to be not only expensive, but even unsuccessful.

Reports from state-insurance programs do indicate a much lower ratio of operating costs to insurance coverage provided. The operating costs of seven of the nine state insurance programs for which these data are available are reported to have ranged from 4 per cent to 10 per cent

of the premiums as compared to an average operating cost of 50 per cent of earned premiums for all commercial insurance companies for a 23 year period, 1929 to 1952. Although it is known that in some instances state insurance programs have not been charged by state governments with all of the costs of their operation, still, the available data do give some grounds for believing that on a statewide basis, it may be possible to provide state insurance at less cost than commercial insurance.

(2) Improving of Property Accounting in Local School Districts

It is suggested by some that a state insurance program would encourage better property accounting through uniform and systematic policies supervised by the state. The appraisal of school property could be done by a state agent, such as the state engineer's office. However, there is no evidence in the existing nine state self-insurance programs that shows these states have been able to accomplish these needed features in school accounting. That there is need for improvement of property accounting practices among local school districts cannot be denied, but whether this improvement can be encouraged only, or even better, through a state insurance program is not borne out by any objective evidence.

(3) Ensuring More Complete Fire Insurance Coverage of Public School Property

It is suggested by some that a state insurance program would probably insure more adequate fire insurance coverage of public school property. Evidence in the present study does indicate that many districts are underprotected with respect to fire insurance. However, there is no evidence to the effect that a self-insurance program is necessarily the only, or the best way to insure adequate coverage.

(4) Removing the Pressure on Local School Boards to Award Their Insurance Business on Some Other Basis than Economy and the Well-Being of School Districts

It is true that school boards are often under considerable pressure to award their insurance business on some other basis than the interests of the school district. A self-insurance program is not the only alternative open to boards wishing to avoid or resist these pressures. Many school districts have adopted policies and practices for awarding their insurance business which protected them against such pressures.

(5) Private Enterprise and the Self-Insurance Program

Many who object to self-insurance programs do so on the grounds that such a program represents an invasion of private enterprise. This is an argument raised whenever any public agency embarks upon a project also being carried on by private enterprise, particularly if private

enterprise was first in the field or is strong in the field. However, if it can be assured that states can achieve the necessary protection against loss by fire at lesser cost, by building up their own reserves, there seems to be no reason to deny this economy on the grounds of invasion of private enterprise.

11. Fire Safety

Fire safety in public school buildings is primarily important in reducing danger of accident or death among school children and school personnel; it is secondarily of importance, in that it reduces the economic loss resulting from damage or destruction of school buildings and equipment. It is apparent, too, that if greater fire safety can be provided, the costs of fire insurance may be reduced. It is for this reason that an understanding of the causes of school fires and the means of their prevention is of such importance.

The best source of information concerning the causes of school fires are the reports of the National Fire Protection Association. Their records and those of the Oregon State Fire Marshall relative to school fires both indicate clearly that most school fires are the result of carelessness and neglect and that a majority of them could have been prevented if proper attention had been given to fire safety.

An examination of fire insurance rating sheets shows that a large part of the fire insurance premiums paid are made up of

penalties levied because of fire hazards found in the structure of the building or in its maintenance and upkeep, including the failure to provide adequately for fire control provisions in the building.

Planning an adequate safety program for public schools begins with the development of the educational and structural specifications for the building. During this planning stage, several agencies are available to assist local district boards in insuring that they incorporate what is known about fire safety in school construction. The more important of these are the Building Specialist of the State Department of Education; the State Fire Marshall, whose primary responsibility it is to approve school building plans for their safety features; and the Oregon Fire Insurance Rating Bureau.

An analysis of the responses of reporting school districts in this study indicates that many of them are unaware of the services of this last-named agency. The Rating Bureau will check the building plans for safety and will supply school boards with suggestions concerning ways in which the plans for the structure may be altered, often at little or no additional increase in the cost of the building, so as to insure greater fire safety and hence, lower fire insurance rates.

The Insurance Rating Bureau will also give to school districts, upon request, a rating sheet for each building, showing existing fire hazards and the resulting penalties in fire insurance premiums. These sheets are invaluable to school districts in developing fire

safety programs. Yet an analysis of the data from reporting school districts in this study indicates that many districts are unaware of this service which is available to them free of charge.

Of additional assistance to the local school board in a systematic approach to the improvement of the fire safety rating of school buildings is the self-survey form developed by the National Board of Fire Underwriters and adopted by the National Association of School Business Officials. This is suggested as an extremely valuable aid to local districts.

Recommendations

It is recommended that:

1. The Oregon State Department of Education consider the following as a means of assisting local school districts to secure more adequate fire insurance coverage more economically:
   A. The preparation of a manual dealing with the management of the school district insurance program written for the use of school boards throughout the state.
   B. The provision of consultant service to local school districts on matters of insurance.
   C. The revision of the school districts' annual report forms to include all insurance policies, endorsements, and premium rates. This would permit follow-up studies of insurance costs without the tedious, time-consuming search that is now required to secure these data.

2. The Oregon School Boards' Association and the Oregon Association of District Superintendents appoint committees on insurance to continue the study of insurance costs and problems of local school districts in Oregon.

3. The State Fire Marshall maintain a separate classification for public school buildings in his records of fires and fire losses.

4. The data presented in this study relative to the cost-loss ratios for public school district fire insurance, be presented to the Oregon Fire Insurance Rating Bureau with the request that rates for public school buildings and equipment be reduced accordingly.

5. If fire insurance rates are not reduced for local school districts, interested agencies such as the Oregon School Boards' Association and the Oregon Association of District Superintendents seek legislation to provide a state insurance program giving coverage to public school systems.

BIBLIOGRAPHY

BOOKS

Association of Public School Business Officials, Insurance Committee, Insurance Committee, Insurance Committee Report on School Fire Insurance, 1938-45, Kalamazoo, Michigan: The Association, 1948.

Best's Insurance Guide with Key Ratings. New York: Alfred M. Best Co. 1950.

Blose, David T. and Jaracz, William T. Status of State School Systems. Biennial Survey of Education in the United States, 1948-50. Federal Security Agency, Office of Education. Washington: United States Government Printing Office, 1952.

Brownell, Samuel Miller (Commissioner). Report of the Status Phase of the School Facilities Survey (authorized by Title 1, P. L. 815, 81st. Congress) U. S. Department of Health, Education and Welfare. Office of Education, School Housing Section, Washington, D. C., 1953.

Dreyer, Ralph H. and Martin, Howard L. Fire Insurance. San Francisco: General Educational Publications, 1954.

Holy, T. C. A Study of Public Elementary and Secondary Education in Oregon. State Department of Education. Salem, Oregon: 1950.

Holy, T. C. Comparisons of School Plant Insurance Premiums and Reported School Fire Losses in Ohio City, and Counties for 1930-31. Ohio State University Bureau of Educational Research, 1933.

Linn, Henry H. and Joyner, Schuyler C. Insurance Practices in School Administration. New York: The Ronald Press Company, 1952.

Martin, Howard L. General Insurance in Oregon. General Education Publications. San Francisco: 1952.

Malchior, William T. Insuring Public School Property. Teachers' College, Columbia University. Contributions to Education, No. 168. New York: Bureau of Publications, 1925.

Putnam, Rex. Standards for Public Secondary Schools in Oregon. Salem, Oregon. 1951.

Reeder, Ward G. Public School Administration. New York: The Macmillan Company, 1941.

Riegel, Robert and Loman, H. J. Insurance Principles and Practices. New York: Prentice-Hall, 1947.

Scoville, Wilber E. A State Program for the Fire Insurance of Public School Property in Colorado. Unpublished Master of Arts Thesis. Colorado State College of Education, Greeley, Colorado, 1952.

Shuman, W. L.; Eyman, R. M.; Bash, E. W. "A Study of School Insurance Costs." Report of the Educational Council, 1947. Columbus; Ohio Education Association.

Smith, George D. Fire Insurance Coverage for Washington School Districts. Bureau of Governmental Research and Services, University of Washington, Seattle, 1951. Report No. 114.

Smith, Harvey. Economy in Public School Insurance. Thesis Contributions to Education, No. 428. Teachers' College, Columbia University, 1930. New York, N. Y.

Upton, Ronald H. A Study of Fire-Insurance Cost and Practices in City School Districts. Unpublished Ed. D. Dissertation. University of Southern California. Los Angeles: 1947.

Vance, William R. Handbook on the Law of Insurance. St. Paul: West Publishing Company, 1930.

Viles, N. E. Improving the Insurance Program in Local School Districts. Jefferson City, Missouri: Midland Printing Company, 1934.

Viles, N. E. School Fire Safety. U. S. Office of Education. Bulletin No. 13. Federal Security Agency. Governmental Printing Office, Washington, D. C., 1951.

Woodell, Marshall. An Insurance Program for Oregon Schools. Unpublished Ed. D. Dissertation. Oregon State College, 1954.

PERIODICALS

Anderson, E. R., "School Fire Insurance Premiums and Indemnities in Georgia." The American School Board Journal. 103: 58. August, 1941.

Beach, Fred F., "Saving Thirty Per Cent on Insurance." American School Board Journal. Vol. LXXXII. June, 1931.

Holy, T. C., "State Insurance for School Buildings," The Nation's Schools, Vol. 16, No. 4, (October, 1935), pp. 60-62.

Joyner, S. C., "Buying School Insurance," The American School Board Journal, Vol. 96, No. 3 (March, 1938), pp. 51-52.

Joyner, S. C., "Distribution of School Insurance to Local Agents," The American School Board Journal, Vol. 95, No. 3, (September, 1937), pp. 50-51.

Joyner, S. C., "Recent Trends in School Insurance, The American School and University, 19th Annual Ed., (1947-48), pp. 199-200.

Joyner, S. C., "Recommended School Fire Insurance Procedure," The American School Board Journal, Vol. 106-107, (April, 1943), pp. 29-30.

Kline, Chester A., "Purchasing School Insurance," Journal of American Insurance, Vol. 21, No. 5, (May, 1944), p. 6.

Linn, H. H., "Are Fire-Insurance Rates on Public School Property Excessive," The American School Board Journal, Vol. 89, No. 5, (November, 1934), pp. 25-26.

Nibecker, A. S., Jr., "Appraisal of Buildings for Insurance Purposes," The American School Board Journal, Vol. 103, (November,1941), pp. 39-40.

Norton, John K., "Federal Aid for School Construction." NEA Journal, March, 1955.

"1000 School Fires," The Nation's Schools, Vol. 25,3 (March, 1940) p. 70.

Wilas, Nelson E. and Pulliam, Nolan D., "School Plant Operation, Maintenance, and Insurance," Review of Educational Research, Vol. 18, No. 1, (February, 1948), pp. 57-58.

PAMPHLETS

Building Exits Code. National Fire Protection Association. Boston 10, Massachusetts: 1943.

Hanson, George S. State and Municipal Self-Insurance. National Association of Insurance Agents, New York, 1954.

Municipal Fire Insurance. A Manuel of Fire Insurance Coverages and Recommended Procedures for California Cities. Report 32. October 3, 1941.

National Association of Public School Business Officials. Committee on Insurance Research. An Investigation of Insurance Practices. Pittsburgh, Pennsylvania, 1941.

National Association of Public School Business Officials, Committee on Insurance Research, Insurance Practices in City School Districts. Trenton, New Jersey, 1932.

National Fire Protection Association. School Fires. Boston, Massachusetts: 1946.

Smith, George D. Fire Insurance Coverage for Washington School Districts. Bureau of Governmental Research and Services, University of Washington. Seattle, 1951. Report No. 114.

STATE PUBLICATIONS

The Codes of Alabama. 1940. Vol. V. Tit. 28. Cha. 11. Secs. 317 through 328 as amended by Acts of Alabama, 1949, Act No. 676.

Arkansas Legislative Council, Research Department, Summary of State Self-Insurance Programs.

Florida Statutes. 1949. Vol. I. Tit. 18. Cha. 284.

State of Indiana. Report on Insurance of State Buildings. May, 1952. (Mimeographed report).

Kentucky Revised Statutes (4th Biennial Ed.) Tit. 7., Ch. 56. Sec. 56.070 through 56.180 as amended by Kentucky Revised Statutes, 1950.

The Compiled Laws of the State of Michigan. 1948. Vol. III. Ch. 550. Secs. 550.701 through 550.708. Public and Local Acts of Michigan. Act. No. 100.

Laws of North Carolina. Chapter 1182. 1949. Amended 1953.

Report on Public School Insurance Fund Issued by the Division of Insurance of the State Board of Education. Raleigh, North Carolina: 1954.

North Dakota Revised Code of 1943. Vol. II. Ch. 24-26. Secs. 26-2401 through 26-2425, as amended by North Dakota Revised Code of 1943 (1949 Supp.)

Annual Reports of State Fire Marshall, Oregon. Robert B. Taylor, State Fire Marshall. Salem, Oregon: 1948-53.

Oregon School Directory issued by Rex Putnam, State Superintendent of Public Instruction, Salem, Oregon: 1952.

Insurance Laws of the State of Oregon, 1954, Sec. 738.160.

Insurance Practices of Oregon Cities, Bureau of Municipal Research and Services in Cooperation with the League of Oregon Cities. Bulletin No. 94. Oct. 1954. Compiled by Robert Moulton.

Code of Laws of South Carolina. 1942. Vol. II. Tit. 23. Ch. 98. Secs. 2180 through 2195. Also South Carolina Acts, 1947. Act No. 104.

Report of the Commissioners of the State Sinking Fund to the General Assembly of South Carolina for the Period Ending June 30, 1954.

Wisconsin Statures. 1949. Ch. 210. Secs. 210.01 through 210.04.

APPENDIX A

LANE COUNTY FIRE INSURANCE SURVEY
THREE YEAR AVERAGES, 1948-51
PUBLIC SCHOOL DISTRICTS

Dist. No.	District Name	Buildings and Equipment	Insurance in Force	Insurance Costs
1	Pleasant Hill	137,349.50	58,318.16	602.26
4	Eugene	4,468,271.32	4,478,036.33	34,456.64
16	Twin Oaks	7,700.00	4,333.33	78.85
19	Springfield	2,592,452.82	2,134,786.67	16,971.50
25J	Latham	91,823.41	90,333.33	1,452.64
26	Saginaw	11,166.67	10,333.33	175.87
27	Liberty	4,466.67	3,400.00	115.08
28	Veneta	180,000.00	86,600.00	1,290.62
31	Blue Mt.	20,883.33	16,191.67	220.73
32	Mapleton	267,500.00	267,133.33	3,540.44
36	Lorane	72,000.00	56,000.00	867.62
40	Creswell	204,948.76	99,799.97	2,050.87
43	Coburg	75,289.28	72,000.00	912.99
44	Central	3,500.00	2,650.00	26.55
45	Cottage Grove	480,278.68	458,633.33	2,144.28
48	Silk Creek	13,700.00	13,313.33	242.85
49	Deadmond's Ferry	933.33	800.00	37.32
52	Bethel	785,220.95	726,412.67	9,328.19
55J	Ward	4,450.00	2,700.00	24.30
66	Applegate	93,039.00	87,133.33	2,188.39
67	Fall Creek	51,000.00	47,543.67	873.92
68	McKenzie	372,557.74	307,000.00	3,721.63
69	Junction City	623,307.30	467,398.67	4,169.25
71	Lowell	176,952.55	138,033.33	3,267.63
75	London	64,907.29	60,866.67	956.29
76	Oakridge	546,634.00	451,566.67	5,950.44
78	Pine Grove	4,500.00	4,500.00	51.11
79	Marcola	65,049.33	57,366.67	829.24
80	Lynx Hollow	5,966.67	5,833.33	40.39
84	Culp Creek	42,710.47	40,133.33	452.89
88	Noti	40,000.00	35,000.00	523.78
90	Blachly	164,000.00	134,316.67	2,554.62
93	Dorena	77,384.52	56,000.00	820.57
7J	Florence	333,201.33	299,200.00	5,129.87
98	Lebleu	6,666.67	5,833.33	119.80
102J	Linslaw	9,536.83	11,420.00	353.11
112	Deadwood	3,666.67	3,066.67	31.12

APPENDIX A
(Continued)

Dist. No.	District Name	Buildings and Equipment	Insurance in Force	Insurance Costs
165	Ryan			17.07
170J	Fiddle Creek	1,333.33	1,166.67	14.79
177	Disston	45,333.33	32,000.00	351.12
186	Alvadore	15,000.00	14,000.00	133.75
191	Delight Valley	18,456.04	8,361.63	196.16
U-1	Pleasant Hill	73,333.33	59,274.26	1,359.93
U-3	Crow	25,113.67	28,166.67	415.08
U-4	Elmira	89,534.87	102,000.00	1,394.33
U-8	Mohawk	80,866.67	63,782.33	850.98
U-9	Lowell	110,000.96	101,166.67	2,658.59
U-12	Creswell	97,540.00	81,833.33	1,060.59
U-14J	Cottage Grove	509,562.34	463,300.00	2,502.09
		$13,561,958.73	$12,107,242.69	$122,836.20

APPENDIX B

Creswell Union High School

DISTRICT U-12

Creswell, Oregon
May 4, 1954

Would you, as a superintendent, like a copy of a study showing what the policies and practices of school districts in Oregon are with respect to school district fire insurance programs and what this insurance program cost the taxpayers on a cost-loss ratio? I have asked several superintendents this question, and they have without exception asked, "How and where can I get it?"

Even though some work has been done in this field, a complete study of this type does not exist. But it will, if you and other superintendents make the small investment in time which the filling out of the attached data form represents.

If you will supply the information concerning your own school district, the rest of the work will be done for you. That is, all the data received from administrators throughout Oregon will be tabulated--together with additional information from the Bureau of Audits, the Fire Commissioner's office and the State Fire Marshall 's office. This will make possible a complete report to you concerning policies and practices related to school district fire insurance throughout Oregon.

Incidentally, the Oregon School Superintendents' Association and the State Department of Education are aware of the need for this study and are heartily endorsing it. In fact, Mr. A. L. Beck of the State Department of Education has asked for a copy of the study to summarize for forwarding to every school board and school administrator in Oregon.

Will you, therefore, kindly complete the enclosed sheets at your earliest convenience and mail back in the enclosed envelope. Your cooperation in this matter will be sincerely appreciated.

Sincerely yours

C. Edwin Ditto, Superintendent
Creswell Union High School

CED:d

Enclosure

APPENDIX B
(Continued)

CRESWELL UNION HIGH SCHOOL

Creswell, Oregon

May 6, 1954

TO SCHOOL CLERKS:

Since there has been considerable raise in the cost of operation of public schools, the question of how to cut school expenses has been an important issue among all school boards.

One expense which seems to be both important and necessary has received much discussion--the problem of school insurance. There has been some investigation on the types of insurance programs which schools might use and the related legal responsibilities of boards of education in the administration of their fire insurance programs.

However, there is still need to define current insurance practices in Oregon including the cost-loss ratio in all districts over the past few years. In order to make this study complete and of value to school boards, it is necessary to obtain firsthand the information requested on the attached form.

This study has received the endorsement of the Oregon School Superintendent's Association, and also of the State Department of Education.

Will you, therefore, kindly complete the enclosed sheets at your earliest convenience and mail back in the enclosed envelope. Your cooperation in this matter will be sincerely appreciated.

Sincerely yours

C. Edwin Ditto

C. Edwin Ditto, Superintendent
Creswell Union High School

CED:lm

APPENDIX B
(Continued)

LETTER TO
COUNTY SCHOOL SUPERINTENDENTS

Inclosed is a copy of a letter and data form which was sent to the administrators in each first and second class districts throughout the state and to some school clerks in the third class districts.

Since there probably will not be a complete return on all school districts, however, I should appreciate it very much if you would fill in all questions on which you have available information. Questions 2 through 5 and questions 19 through 20 are especially important to this study.

Sincerely yours

C. Edwin Ditto, Superintendent
Creswell Union High School

NOTE SENT WITH
ALL QUESTIONNAIRES

As president of the Oregon School Superintendents, I urge your fullest cooperation in the filling out of this data form so that Mr. Ditto can complete this vital study.

Paul S. Elliott, Superintendent
Oakridge Public Schools

APPENDIX C
PUBLIC SCHOOL FIRE INSURANCE TOTALS BY COUNTIES

County	Value of Buildings	Value of Furn. & Fix.	Total Value	Amount of Insurance Carried	Fire Insurance Receipts	Fire Insurance Disbursements
Baker	$ 1,501,933.16	$ 236,094.57	$ 1,738,027.73	$ 607,050.00	$13,161.33	$ 21,126.96
Benton	2,962,871.72	470,040.53	3,432,912.25	3,242,950.00		22,568.99
Clackamas	11,080,809.24	1,651,721.61	12,732,530.85	12,569,533.19	3,157.88	81,483.54
Clatsop	3,504,454.39	567,602.82	4,072,057.21	2,218,723.00	1,360.31	28,248.13
Columbia	3,313,525.29	500,251.69	3,813,776.98	4,086,513.19		66,882.96 (fix. charg.)
Coos	5,926,143.73	820,447.95	6,746,591.68	322,750.00	263.49	44,733.42
Crook (county unit)	1,325,308.28	328,122.35	1,653,430.63	1,400,833.28	200.59	6,857.46
Curry	972,122.10	167,415.47	1,139,537.57	402,856.00		9,930.70
Deschutes	2,819,627.33	499,146.50	3,318,773.83	3,802,468.25		20,817.88
Douglas	4,431,735.29	625,144.79	5,056,880.08	3,414,188.07		100,502.07
Gilliam	680,000.00	170,000.00	850,000.00			7,997.80
Grant	956,676.00	134,113.00	1,090,789.00	1,070,400.00		11,439.00
Harney	822,461.57	119,300.08	941,761.65	871,207.55		16,930.32
Hood River (Co. unit)	966,237.00	104,288.04	1,070,525.04	1,365,294.04		10,795.17
Jackson	5,191,339.41	865,898.92	6,057,238.33	4,160,163.50		82,300.00
Jefferson	1,305,939.07	326,484.76	1,632,423.83			11,822.68
Josephine (Co. unit)	2,018,631.85	582,657.26	2,601,289.11	1,728,005.00		8,495.19
Klamath (Co. unit)	4,956,072.92	755,744.64	5,711,817.56	4,704,630.00		21,743.92
Lake	1,190,860.17	182,842.71	1,373,702.88	1,138,605.11		5,685.09

APPENDIX C
(Continued)

County	Value of Buildings	Value of Furn. & Fix.	Total Value	Amount of Insurance Carried	Fire Insurance Receipts	Fire Insurance Disbursements
Lane	$ 21,686,945.73	$ 2,834,418.85	$ 24,521,364.58	$ 20,814,250.38	$	$ 155,911.81
Lincoln (Co. unit)	2,566,435.59	201,181.98	2,767,617.57	2,180,955.80		14,027.78
Linn	1,145,093.32	149,554.15	1,294,647.47	1,593.500.00		13,527.66
Malheur	3,741,880.54	350,151.76	4,092,032.30	3,240,173.95		11,031.02
Marion	10,542,178.98	1,840,256.20	12,382,435.18	13,609,351.70	2,160.56	18,450.00
Morrow	845,053.16	144,516.25	989,569.41	958,100.00		6,897.73
Multnomah	9,003,968.12	1,133,589.06	10,137,557.18		3,748.04	76,078.72
Portland	31,823,395.00	3,588,874.00	35,412,269.00	31,871,043.00		45,000.00
Polk	2,170,566.87	287,483.36	2,458,050.23	2,079,686.54		14,122.67
Sherman	829,581.14	146,849.21	976,430.35	944,000.00		4,645.72
Tillamook	1,121,760.02	141,670.00	1,263,430.02	2,250,546.00		11,084.85
Umatilla	5,114,834.34	673,925.58	5,788,759.92	4,748,606.75		44,144.52
Union	2,773,077.75	643,094.44	3,416,172.19	2,491,350.00		17,693.66
Wallowa	914,754.00	119,079.26	1,033,833.26	951,950.00		9,804.50
Wasco	1,051,639.02	136,701.53	1,188,340.55	1,871,105.00	106.13	7,505.32
Washington	8,839,643.26	1,370,176.84	10,209,820.10	8,792,864.50		60,190.25
Wheeler	400,000.00	100,000.00	500,000.00			5,200.00
Yamhill	3,368,163.20	512,493.41	3,880,656.61	3,050,608.07		23,822.97
	163,865,718.56	23,481,333,57	187,347,052.13	148,554,261.87	24,158.33	1,119,500.46

Typed by Gertrude Ditto