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SCHOOL PROPERTY INSURANCE

Experiences at State Level

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Foreword

SCHOOL INSURANCE PROGRAMS often present major problems in school administration. School insurance of various types is one means of preventing or limiting financial loss from property damage or the claims of individuals for injury or damage payments. In varying degrees the States have delegated to certain local administrative school units and/or institutional boards the responsibility for administering the educational program in their areas of influence. This responsibility is often construed to carry with it an obligation to protect and preserve the physical properties of the district and also to some extent to protect the school administrative unit or its officials from damage or injury claims. The different local boards assume these responsibilities in various ways.

There are many types of insurance coverage purchased by the schools and the total annual premium costs may become a major budget item for a school district. School insurance problems are of concern both to the local districts and to the State. This study is limited primarily to school insurance experiences on a State-wide basis. It gives specific attention to the total premium costs, the losses, and the loss ratios for one area of coverage—that of fire insurance on all school properties—for the 5-year period 1948–52 inclusive, as developed on the basis of the classification agreement of 1947. (At this time, data for other types of coverage do not seem to be available on a State-wide basis.) In addition, the study gives attention to the experiences of the five States which have developed State-operated school insurance programs which are applicable to elementary and secondary public schools.

This study presents data on both privately managed and State sponsored fire insurance programs as they apply to schools. These programs are operated on different bases and no effort is made to compare or to evaluate the relative merits or costs of the two types of programs. Anyone attempting to

make such evaluations probably should give due regard to certain factors not expressly considered in this study.

The Office of Education wishes to express appreciation to the National Board of Fire Underwriters and the Mutual Insurance Advisory Association for their assistance, to the American Mutual Alliance for its advice, and to the various State departments of education and the departments of insurance or State insurance program directors which reported information relative to their programs. The Office expresses particular appreciation to the directors of the five State-operated programs who provided information and who took time to review and edit the summaries of the programs in their respective States.

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Section I

INTRODUCTION

SCHOOL INSURANCE has developed into a major administrative problem for many local school officials. A few decades ago insuring companies did not show any great interest in school insurance, and local school officials limited their programs to some fire and/or wind-protection coverage purchased through a local agent. Today under aggressive salesmanship and with certain newer ideas concerning school district obligations, some school boards purchase 20 or 25 different types of insurance coverage. These types of protection include such features as windstorm or extended coverage, workmen's compensation, burglary, liability or accident, and special types of coverage on certain movable objects. These increased coverages have been accompanied by substantial increases in costs.

School officials have not adopted a common pattern of school insurance coverage. Some school districts write no coverage on school property but provide a type of self-insurance by building up reserves for replacement. Certain other school districts assume the risks without building up replacement reserves. Most school districts purchase various types of insurance coverage. Some of them write partial or minimum coverages, expecting to assume a part of the risk. Others write extensive or even full coverage on many or most items of risk. However, a majority of the school districts probably attempt to develop and maintain a selective type of coverage on the various risks included in their insurance programs.

SOME OTHER STUDIES IN THIS FIELD

Several studies have been made on segments of the total school insurance program. Keith and Taggart [1] made a study of the insurance programs for the years 1922–27 on about 2,400 school buildings in Pennsylvania. During the 5-year period premiums were reported to be about $1,000,000 with losses of about $220,000. Keith and Taggart also showed that for this period loss ratios were higher on certain types of

[1] Keith, J. A. H. and Taggart, M. H. *A Study of the Nonmutual Insurance of School Property in Pennsylvania.* Harrisburg, Pa., Commonwealth of Pennsylvania, 1929. 12 pp.

buildings. Holy [7] made a study of the premiums paid, fire losses, and loss ratios for certain Ohio schools for the years 1930–32 inclusive. His report showed a loss ratio of about 7 percent for the buildings covered during these 3 years. Melchior [8] made in 1925 a study of the insurance rates on 1,278 New York State buildings, and Smith [9] made in 1930 case studies of the insurance costs for about 200 buildings in New Jersey, and Viles [10] issued in 1934 a detailed analysis of the make-up of school building insurance rates, and in 1941 outlined procedures for establishing a local program.[11] A later study by Finchum [12] outlined suggested procedures for insurance programs in Tennessee, and Smith,[13] Research Associate of the Bureau of Governmental Research and Services, University of Washington, outlined in 1951 a study of fire insurance coverage for Washington school districts.

In a series of committee studies the Association of Public School Business Officials summarized fire insurance experience results in selected city school systems in the United States and Canada. On page 49 on the 1932 report [14] the committee made a statement to the effect that, at that time, fire loss payments for all coverages for stock insurance companies were about one-half of the premium dollars received. The committee was not attempting to evaluate this ratio but used it as a basis of comparison in reporting the fire-loss ratios for city school building insurance. This committee reported a total school fire-loss ratio of 28.7 percent for the 10-year period, 1921–30, for the cities reporting. The 1941 committee report [15] covered schools in 257 cities for a 7-year period, 1931 through 1937, and showed a fire-loss ratio for these cities of 26.9 percent. In support of their contention that city school fire insurance rates were too high, this committee cited National Board of Fire Underwriters' data [16] showing for the years 1932–38 inclusive a fire-loss ratio of 40.6 percent for all types of

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[7] Holy, T. C. *Information on School Plant Insurance in Ohio.* Columbus, Ohio, Bureau of Educational Research, 1933. Mimeograph.

[8] Melchior, W. T. *Insuring Public School Property.* Contribution to Education No. 168. New York, Teachers College, Columbia University, 1925. 187 pp.

[9] Smith, H. A. *Economy in Public School Fire Insurance.* Contribution to Education No. 428. New York, Teachers College, Columbia University, 1930. 113 pp.

[10] Viles, N. E. *Improving the Insurance Program in the Local School Districts.* Columbia, Mo., University of Missouri, 1934. Thesis.

[11] Viles, N. E. *School Plant Insurance.* Nashville, Tenn., Interstate School Building Service, Peabody College, 1941. 15 pp.

[12] Finchum, Ralph N. *Planning the School Insurance Program in Tennessee.* Knoxville, Tenn., University of Tennessee, 1953. Thesis.

[13] Smith, George D. *Fire Insurance Coverage for Washington School Districts.* Seattle, Wash., University of Washington, 1951. Report No. 114.

[14] National Association of Public School Business Officials. *Insurance Practices and Experience of City School Districts.* Bulletin No. 2, 1932.

[15] National Association of Public School Business Officials. *An Investigation of Insurance Practices.* Bulletin No. 9, 1941.

[16] Op. cit., p. 54. (Note—Name later changed to Association of School Business Officials of the United States and Canada.)

educational institutions. An association committee report of 1948 [12] summarized the loss-ratio experience for certain cities for the three periods by States. The summaries are shown in table 1.

The data in table 1 were reported by the association committee. They seem to be limited to fire-loss ratios reported by local city school officials for cities of various sizes in the United States and Canada. The 1921–30 period report provides data on about 9,200 school buildings in 380 cities in 32 States—buildings on which premium costs were about $14 million. The 1931–37 period report covered about the same number of buildings in 257 cities on which about $6.7 million premiums were paid. Data were not available to show the coverage included in the 1938–45 period report.

A recent bulletin on school insurance administration was issued in 1953 by the American Association of School Administrators.[13] School insurance is also the basis for a number of current studies. A doctor's thesis by John C. Curry in Indiana relates to Indiana school building insurance losses. Some other studies recently outlined include one by G. R. Robinson, Superintendent of Schools, Hazel Park, Michigan; another by A. N. Abercrombie of Pineville, Kentucky; and a third by Lynn W. Hansen of Blackfoot, Idaho.

DEVELOPMENT AND SCOPE OF THIS STUDY

For years State and local school officials have raised frequent questions concerning school insurance programs. These questions relate to many areas in property, casualty, compensation, fidelity, burglary, and other types of insurance protection. Some of the specific questions have related to such administrative problems as the amount of coverage to carry, the distribution of policy business, maturity schedules, coinsurance contracts, and self-insurance.

However, the basic insurance problems faced by school administrators and the ones eliciting most inquiries are related to school insurance costs. School officials ask about the make-up of insurance rates, the relationship of rates and costs to losses, the reasonableness of rates when compared with those for other insurers, and means of reducing rates. The studies previously listed applied to various phases of the total insurance program. Some provided data on rate making for specific types of coverage, some to loss experiences in limited areas and for specific types of coverage. There has been, and still seems to be, a lack of information concerning total and/or relative costs of the total school insurance program on a State or national basis.

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[12] National Association of Public School Business Officials. *Insurance Committee Report on School Fire Insurance, 1938–45.* Bulletin No. 11, 1948.

[13] American Association of School Administrators. *Managing the School District Insurance Program.* Washington, D. C., the Association, 1953. 24 pp.

Table 1.—LOSS RATIOS [1] (CERTAIN CITY SCHOOL SYSTEMS IN STATES)

Three Surveys by the Association of Public School Business Officials

State [2]	Loss ratios in percent		
	1921–30 inclusive	1931–37 inclusive	1938–45 inclusive
1	2	3	4
Alabama	30.45	16.61	5.86
Arizona	34.23	.00	.00
Arkansas	28.74	74.49	
California	24.81	44.79	18.55
Colorado	14.08	1.35	13.76
Connecticut	14.60	4.20	
Delaware		8.30	89.53
Florida			.72
Georgia		65.76	96.21
Idaho	.00	.00	2.83
Illinois	66.96	45.67	45.77
Indiana	7.20	15.34	31.36
Iowa	30.89	40.51	.35
Kansas		.00	3.27
Kentucky	.00	11.08	.00
Louisiana	78.48	13.84	42.46
Maine	90.44	1.57	.53
Maryland		194.00	2.77
Massachusetts	43.86	10.28	5.44
Michigan	17.76	3.13	5.96
Minnesota	5.49	12.69	14.49
Missouri	27.76	10.96	7.34
Montana	68.50	2.35	.00
Nebraska	1.89	5.85	37.62
New Hampshire		.00	
New Jersey	4.97	1.95	14.60
New York	33.92	38.86	10.67
North Carolina	15.05	144.39	5.99
North Dakota		31.02	
Ohio	28.17	13.05	37.28
Oklahoma	2.24	24.73	.00
Oregon	170.81	123.08	109.76
Pennsylvania	30.08	5.68	76.13
Rhode Island		.00	
South Dakota	16.09	1.74	
Tennessee	7.64	2.89	
Texas	10.21	15.09	13.27
Utah		5.89	7.85
Vermont		.00	
Washington	61.67	41.74	12.47
West Virginia	.84	5.02	5.02
Wisconsin		.65	.89
Wyoming	.00	14.11	
Canada	19.06		106.79
All States and Canada	28.7	28.9	31.9

[1] The Association of Public School Business Officials. *Insurance Committee Report on School Fire Insurance, 1938–45.* Bulletin No. 11, 1946. p. 28–29.
[2] Are not statewide. Cover only certain cities in these States.

In most areas of coverage, school insurance costs, losses, and loss ratios are not sufficiently segregated to permit identifying them as such.

This study seems to be the first attempt to develop specific information about school insurance experiences on a State-by-State basis. Since national and State data were not available on all types of school property insurance, this study is limited to the areas for which state-

wide data were available. It includes experience data as reported by 41 or 42 States where the schools purchase commercial insurance; and for these States it is limited to school fire insurance premium costs, losses [14], and loss ratios.[14] As will be explained later, the data on the five States which have State-operated insurance programs are not limited to *school fire insurance* costs or losses. It should be understood that even the school fire cost and loss data are not complete since some school districts carry self-insurance, which is not reported on a national basis, and some districts which assume their own risks without reserve funds are not included in these reports.

This is planned to be a factual and historical study of existing programs. The study is divided into three major parts. The first provides background. The second deals with fire insurance loss experiences and covers premium costs, losses, and loss ratios by State. The third provides some historical, and a current status, analysis of each of the five State-operated school insurance programs. Since the State operated programs described do not have identical coverages, the data from this section are not easily compared with those in the second section.

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[14] As used in this study the term *losses* refers to the amounts of the indemnities paid by the insurers to the owners; the term *loss ratios* refers to the relationship (stated as percentages) of the loss (indemnities) to the premiums received.

Section II

STATE EXPERIENCES IN SCHOOL FIRE INSURANCE

DATA ON SCHOOL PROPERTY INSURANCE formerly were reported as a part of a classification that included other types of buildings. Consequently the school experience data were not easily segregated or identified in State or national reports. School officials desired a classification pattern that would provide separate data for schools. They also wanted separate information on public elementary and secondary schools.

DATA ASSEMBLED BY NATIONAL ORGANIZATIONS

Complete separation has not been obtained. However, the Standard Classification adopted in 1947 establishes one classification as "Educational Institutions (Public and Private) Including Libraries, Museums, and Auxiliary Buildings on Premises." This classification applies for fire insurance. Under this pattern, stock insurance companies report school fire insurance premium incomes and losses by States to the National Board of Fire Underwriters, and nonstock companies (including mutuals and independents) report to the Mutual Insurance Advisory Association. The two agencies assemble these data from all companies by States and compute the totals and loss ratios for each State. They then report the State totals to the various State insurance departments which had previously designated these agencies as the official statistical agencies for tabulating and reporting such data.

It is generally understood that a single year of experience does not provide ample evidence of the validity of the rate structure. It should also be understood that a 5-year period, while not an accurate measure of the equity of rating, does provide some basis for evaluating the underwriting experience results. Hence, this Office waited until data were available for 5 consecutive years of experience, 1948–52 inclusive, on the classification which sets educational buildings apart as a separate class. These data are reported to the State

insurance departments annually, and in 1953 cumulative data on educational buildings for the 5 years, 1948–52 inclusive, were made available for the State insurance departments. Data for later years were also available in the State insurance departments in 1954 and 1955, but for this Office of Education study it seemed desirable to get experience history for the same 5-year period for all of the States if possible. Consequently, early in 1954 the Office began to assemble data on State-wide experiences on fire insurance premium costs, losses, and loss ratios by States, for both the stock company and the mutual and independent group, for schools during the years 1948–52 inclusive.

Under the 1947 Standard Classification plan the educational buildings class (generally designated by a code number) is divided into three groups according to type of construction. These are fire-resistive, which probably is self-explanatory; ordinary or brick, which may have masonry walls but some combustible interior construction; and frame construction, which also is probably self-explanatory. Each of these groups is reported separately for protected or non-protected areas—indicating whether or not the buildings are located in areas having approved fire protection. On this basis the reports sent back to the State insurance departments covered six different groups of school buildings.

DATA MADE AVAILABLE AT STATE LEVEL

These educational building fire insurance experience data in the State insurance departments were, as public information, made available on request to representatives of the State departments of education. In some cases the State department of education representatives explained their interest in these data and the use they expected to make of them. In a few cases the cost-loss information was available also for the year 1953. Generally, however, the States adhered to the pattern suggested by the Office of Education, and reported composite summaries of the school fire underwriting experience results for only the 5-year period, 1948–52 inclusive. Some State department of education officials copied the data from the insurance department records. In one State the data were obtained by telephone from the rating bureau officials, upon recommendation from the State insurance office, and were later confirmed by correspondence. In most cases the State insurance department officials reported the data to the State department of education representative (usually the director of the school plant service unit in the State department of education). A few State insurance department officials sent the information directly to the Office of Education at the request of the local State department of education.

All of the data in the following tables were taken from the reports sent in from the States except (as will be shown in one table) certain mutual and independent insurance company information, which did not seem to be available in the State offices. (Consequently a breakdown into the six classes was omitted from the State reports.) However, the totals of such experiences for mutual and independent companies were obtained directly from the Mutual Insurance Advisory Association and are included in a separate totals table. Because of such inclusion this one table of totals will show slightly more coverage and losses than are shown in the summaries of the previous tables.

Five States have State operated property insurance programs and these will be covered in a later section. Two of these States—Wisconsin and North Carolina—have both optional State operated program coverage for some schools and commercial coverage for others and they reported each. North Carolina did not report the commercial insurance breakdown by types of buildings but did provide totals for each class. Three State education departments (Delaware, Montana, and New Hampshire) were not able to locate the desired data in their States. Hence the tables show stock and mutual or independent coverage experiences for all of the schools in 40 States and data for partial coverage by commercial insurance in two States, North Carolina and Wisconsin. Later tables will show the experiences of the five State-operated programs including those in North Carolina and Wisconsin. Information was not available to show whether the mutual experience data included local or county mutuals. However, the amount of school coverage written by such local mutuals probably is small.

SCHOOL FIRE INSURANCE COST AND LOSS EXPERIENCE: 1948–52

The following tabulations provide summaries of the State reported educational building (public and private at all levels) fire insurance costs and losses paid for the 5-year period 1948–52. The experience data for each of the three classes of buildings—fire resistive, ordinary or brick, and frame—are reported separately for protected and unprotected areas. These are reported as factual data and no attempt is made to evaluate the overall cost and loss relationships.

Table 2 shows the costs, losses, and loss ratios for fire-resistive buildings in protected areas for the States reporting.

Table 2 shows a wide range in loss ratios for fire-resistive school buildings in protected areas. This wide range in loss ratio percentages is in some cases explainable because of small coverage and premium incomes for this type of risk. The loss ratio shown for Mississippi in mutuals and again in the totals might have been caused by one or two fires each. The same might be true in the case of the Colorado totals. This illustrates the need for information on numbers of cases in order

Table 2.—FIRE INSURANCE COSTS, LOSSES, AND LOSS RATIOS ON FIRE-RESISTIVE BUILDINGS IN PROTECTED AREAS,[1] 1948–52

State	Stock company insurance			Mutual and independent company insurance[2]			Totals—stock and mutual insurance		
	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio
1	2	3	4	5	6	7	8	9	10
Alabama[3]									
Arizona	[illegible]	[illegible]	14.2				[illegible]	[illegible]	14.2
Arkansas	[illegible]	[illegible]	3.8				[illegible]	[illegible]	3.8
California	[illegible]	[illegible]	28.8				[illegible]	[illegible]	28.3
Colorado	[illegible]	[illegible]	74.5				[illegible]	[illegible]	74.5
Connecticut	[illegible]	[illegible]	14.6	[illegible]	520	0.0	[illegible]	[illegible]	14.8
Delaware[4]									
Florida	[illegible]	[illegible]	9.1	[illegible]	647	9.5	[illegible]	[illegible]	9.1
Georgia	[illegible]	[illegible]	14.9	[illegible]	1,128	6.9	[illegible]	[illegible]	14.3
Idaho	[illegible]	[illegible]	9.6				[illegible]	[illegible]	9.6
Illinois	[illegible]	[illegible]	14.6	[illegible]	[illegible]	16.6	[illegible]	[illegible]	17.0
Indiana	[illegible]	[illegible]	28.1				[illegible]	[illegible]	28.1
Iowa	[illegible]	[illegible]	10.2	[illegible]	[illegible]	10.0	[illegible]	[illegible]	10.2
Kansas	[illegible]	[illegible]	8.5	[illegible]	[illegible]	48.5	[illegible]	[illegible]	9.4
Kentucky	[illegible]	[illegible]	15.8	[illegible]	[illegible]	0.0	[illegible]	[illegible]	15.8
Louisiana	[illegible]	[illegible]	84.0				[illegible]	[illegible]	84.0
Maine	[illegible]	[illegible]	4.9	[illegible]	31	1.0	[illegible]	[illegible]	4.5
Maryland	[illegible]	[illegible]	13.9	[illegible]	142	.7	[illegible]	[illegible]	13.2
Massachusetts	[illegible]	[illegible]	28.6	[illegible]	[illegible]	2.3	[illegible]	[illegible]	24.4
Michigan	[illegible]	[illegible]	24.7	[illegible]	[illegible]	16.7	[illegible]	[illegible]	24.0
Minnesota	[illegible]	[illegible]	9.6	[illegible]	[illegible]	17.8	[illegible]	[illegible]	10.5
Mississippi	[illegible]	[illegible]	79.5	[illegible]	[illegible]	202.0	[illegible]	[illegible]	94.0
Missouri	[illegible]	[illegible]	24.1	[illegible]	[illegible]	10.0	[illegible]	[illegible]	23.1
Montana[4]									
Nebraska	[illegible]	[illegible]	11.8	[illegible]	327	1.0	[illegible]	[illegible]	10.6
Nevada	[illegible]	0	0.0				[illegible]	0	0.0
New Hampshire[4]									
New Jersey	[illegible]	[illegible]	21.4	[illegible]	51	.7	[illegible]	[illegible]	21.1
New Mexico	[illegible]	[illegible]	30.6				[illegible]	[illegible]	30.6
New York	[illegible]	[illegible]	32.5	[illegible]	[illegible]	18.6	[illegible]	[illegible]	32.5
North Carolina[5]							[illegible]	[illegible]	16.0
North Dakota[3]									
Ohio	[illegible]	[illegible]	18.6	[illegible]	[illegible]	10.0	[illegible]	[illegible]	18.2
Oklahoma	[illegible]	[illegible]	20.5				[illegible]	[illegible]	20.5
Oregon	[illegible]	[illegible]	20.7	[illegible]	[illegible]	20.0	[illegible]	[illegible]	24.6
Pennsylvania	[illegible]	[illegible]	37.0	[illegible]	[illegible]	6.0	[illegible]	[illegible]	35.7
Rhode Island	[illegible]	[illegible]	1.4	[illegible]	11	0.0	[illegible]	[illegible]	1.4
South Carolina[6]									
South Dakota	[illegible]	[illegible]	8.8	[illegible]	[illegible]	.2	[illegible]	[illegible]	8.1
Tennessee	[illegible]	[illegible]	14.2				[illegible]	[illegible]	14.2
Texas[7]									
Utah	[illegible]	[illegible]	0.0				[illegible]	[illegible]	0.0
Vermont	[illegible]	[illegible]	16.1	[illegible]	[illegible]	4.5	[illegible]	[illegible]	11.4
Virginia	[illegible]	[illegible]	20.0	[illegible]	[illegible]	4.5	[illegible]	[illegible]	17.6
Washington	[illegible]	[illegible]	48.0	[illegible]	[illegible]	17.0	[illegible]	[illegible]	30.9
West Virginia	[illegible]	[illegible]	17.4	[illegible]	[illegible]	0.0	[illegible]	[illegible]	15.6
Wisconsin[8]	[illegible]	[illegible]	12.8	[illegible]	[illegible]	12.1	[illegible]	[illegible]	12.5
Wyoming	[illegible]	[illegible]	2.8				[illegible]	[illegible]	2.3
United States total	[illegible]	[illegible]	24.2	[illegible]	[illegible]	12.0	[illegible]	[illegible]	23.6

[1] The terms protected and unprotected areas, described earlier, refer to the presence or absence of organized fire-fighting services.

[2] Information on mutual and independent company insurance not included in some State reported data. (See table 11 for such additional data.)

[3] Reported in section III under State-operated programs.

[4] Data for these States not available in State department of education officials.

[5] Only quarried parts of total insurance program reported in section III.

[6] Breakdown by types of companies was not available for North Carolina; hence, the amounts in the totals columns exceed those of other columns.

[7] The Texas report did not show fire-resistive buildings as a separate class.

to provide reliable experience data. In this table and the one following, data for fire-resistive school buildings are not reported for Texas. The Texas rating system does not seem to provide a separate school classification for its fire-resistive buildings. Hence, the data shown for Texas probably do not represent State experiences on fire-resistive buildings. The overall loss ratio for stock companies on these fire-resistive buildings for the years 1948–52 was 24.8 percent and for mutuals, 13.0 percent. The overall stock and mutual loss ratios for all fire-resistive buildings in fire-protected areas during the same period was 23.6 percent.

Table 3 provides information on fire-resistive buildings in unprotected areas.

Data in table 3 apply for fire-resistive school buildings in areas not having approved fire protection facilities. The coverage for fire-resistive buildings in this class is less and of course the loss ratio ranges are greater. In these cases the table totals probably merit more consideration than do the totals for individual States because of the more extensive coverage.

For stock companies the overall loss ratio on unprotected fire-resistive buildings was 29.0 percent. For mutuals it was 24.3 percent; and for both stock and mutuals for such buildings, 28.6 percent.

Table 4 provides premium cost and loss information for brick buildings in protected areas.

The buildings included in this class are generally thought of as having masonry exterior walls but some combustible interior construction. There was again a wide range of loss ratios. Texas showed a loss ratio of 86 percent, South Dakota 84.1, Louisiana 72.9, New York 70.1, and Oklahoma 69.7. There were at least nine States with loss ratios of over 50 percent. Vermont, West Virginia, and Wyoming had loss ratios of less than 10 percent each, and 10 States had loss ratios of less than 20 percent. The overall loss ratio for stock companies on brick protected buildings was 41.2 percent. For the mutual group it was 29.2 percent and for both stock and mutuals, 40.1 percent.

Table 5 shows the premium costs, losses, and loss ratios for brick buildings in unprotected areas.

As in some previous tables, loss ratio percentages may be very high where the amount of coverage or the number of cases is small. For instance, a loss of about $170,000 in Rhode Island showed a high loss ratio percentage partly because the coverage and the premiums collected on this type of building were not large in that State and one or two losses could increase the loss ratio percentage. It seems probable that this classification includes a number of rural or consolidated schools where organized fire protection facilities are not available. Other than Rhode Island, two States, Tennessee and Pennsylvania,

Table 3.—FIRE INSURANCE COSTS, LOSSES, AND LOSS RATIOS ON FIRE-RESISTIVE BUILDINGS IN UNPROTECTED AREAS:[1] 1948–52

State	Stock company insurance			Mutual and independent company insurance[2]			Totals—stock and mutual insurance		
	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio
1	2	3	4	5	6	7	8	9	10
Alabama[4]									
Arizona	[illegible]	95	1.0	610	60	6.6	[illegible]	95	1.0
Arkansas	23,474	2,616	12.5				23,474	2,616	12.5
California	21,075	834	4.0				21,075	834	4.0
Colorado	3,679	218	5.9				3,679	218	5.9
Connecticut	30,482	304	1.0	4,708	74	2.0	35,190	[illegible]	1.0
Delaware[4]									
Florida	24,310	2,319	9.6	308	0	0.0	24,618	2,330	9.3
Georgia	17,300	5,606	31.7	3,700	60	2.0	21,069	[illegible]	26.5
Idaho	409	0	0.0				409	0	0.0
Illinois	119,874	7,631	6.4	4,720	21	.4	124,397	7,652	6.2
Indiana	76,851	3,655	4.6				76,851	3,655	4.6
Iowa	25,434	2,280	8.8	9,179	1,208	13.0	34,608	3,443	10.0
Kansas	87,[illegible]	90,[illegible]	103.7	307,061	121,[illegible]	34.0	394,434	212,[illegible]	53.3
Kentucky	31,[illegible]	420	1.3	1,[illegible]	0	0.0	32,072	420	1.3
Louisiana	19,[illegible]	[illegible]	2.3				19,[illegible]	[illegible]	2.3
Maine	3,184	0	0.0	6,300	11	0.0	[illegible]	11	0.0
Maryland	84,[illegible]	17,105	20.3	3,[illegible]	35	1.0	88,151	17,140	19.4
Massachusetts	30,013	0	0.0	5,601	58	.9	36,715	58	.2
Michigan	67,034	3,204	4.7	20,700	[illegible]	2.5	88,722	3,726	4.1
Minnesota	56,501	2,412	4.3	18,[illegible]	7,716	41.6	74,[illegible]	10,128	13.3
Mississippi	15,879	64	.4	[illegible]	0	0.0	16,[illegible]	64	0.0
Missouri	108,715	3,[illegible]	2.9	4,307	0	0.0	113,022	3,[illegible]	2.1
Montana[4]									
Nebraska	2,716	164	6.0	470	44	9.0	3,186	208	6.5
Nevada	62	0	0.0				62	0	0.0
New Hampshire[4]									
New Jersey	13,145	91	.7				13,145	91	.7
New Mexico	18,383	412	2.2				18,383	412	2.2
New York	332,144	48,985	14.7	39,306	6,404	16.3	371,390	55,389	14.9
North Carolina[6]							[6] 34,027	[6] 41,743	122.7
North Dakota[3]									
Ohio	226,[illegible]	43,[illegible]	19.0	104,[illegible]	32,601	30.0	330,119	[illegible]	23.0
Oklahoma	23,[illegible]	[illegible]	4.0				23,[illegible]	[illegible]	4.0
Oregon	3,705	100	2.7				3,705	100	2.7
Pennsylvania	179,702	85,[illegible]	47.5	17,343	90	1.0	197,[illegible]	85,415	43.3
Rhode Island	8,701	0	0.0	885	0	0.0	9,576	0	0.0
South Carolina[3]									
South Dakota	6,344	14	.2	441	0	0.0	6,785	14	.2
Tennessee	82,[illegible]	107,[illegible]	134.5				82,[illegible]	107,[illegible]	134.5
Texas[7]									
Utah	7,439	697	9.4				7,439	697	9.4
Vermont	[illegible]	[illegible]	70.1	146,[illegible]	24,[illegible]	16.7	213,[illegible]	75,[illegible]	35.9
Virginia	102,[illegible]	[illegible]	21.8	17,[illegible]	3,[illegible]	22.3	[illegible]	[illegible],547	21.9
Washington	[illegible]	[illegible]	37.9	140,[illegible]	46,[illegible]	32.9	576,717	[illegible]	35.0
West Virginia	[illegible]	1,[illegible]	3.7				[illegible]	1,[illegible]	3.7
Wisconsin[3]	21,[illegible]	1,[illegible]	6.7	4,[illegible]	44	1.1	25,[illegible]	1,[illegible]	5.7
Wyoming	[illegible]	0	0.0				[illegible]	0	0.0
United States total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	946,373	35.0

[1] The terms protected and unprotected areas, described earlier, refer to the presence or absence of organized fire-fighting services.
[2] Information on mutual and independent company insurance not included in some State reported data. (See table 11 for such additional data.)
[3] Reported in section III under State operated programs.
[4] Data for these States not available to State department of education officials.
[5] State operated parts of total insurance program reported in section III.
[6] Breakdown by types of companies was not available for North Carolina; hence, the amounts in the totals columns exceed those of other columns.
[7] The Texas report did not show fire-resistive buildings as a separate class.

Table 4.—FIRE INSURANCE COSTS, LOSSES, AND LOSS RATIOS ON BRICK[1] BUILDINGS IN PROTECTED AREAS,[2] 1948–52

State	Stock company insurance			Mutual and independent company insurance[3]			Totals—stock and mutual insurance		
	Overall premiums	Overall losses	Per cent of loss ratio	Overall premiums	Overall losses	Per cent of loss ratio	Overall premiums	Overall losses	Per cent of loss ratio
1	2	3	4	5	6	7	8	9	10
Alabama[4]									
Arizona	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arkansas	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
California	[illegible]	1,267,611?	[illegible]				[illegible]	[illegible]	[illegible]
Colorado	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Connecticut	[illegible]	[illegible]	[illegible]	47,727?	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Delaware[4]									
Florida	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Georgia	1,704,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Idaho	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Illinois	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Indiana	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Iowa	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kansas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kentucky	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Louisiana	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Maine	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Maryland	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Massachusetts	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Michigan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Minnesota	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mississippi	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Missouri	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Montana[4]									
Nebraska	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nevada	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
New Hampshire[4]									
New Jersey	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New Mexico	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
New York	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
North Carolina[5]							[7] 1,[illegible]	[7] [illegible]	[illegible]
North Dakota[4]									
Ohio	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Oklahoma	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Oregon	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pennsylvania	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rhode Island	401,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
South Carolina[4]									
South Dakota	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tennessee	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Texas	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Utah	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Vermont	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Virginia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Washington	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
West Virginia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wisconsin[6]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wyoming	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
United States total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

1 The term brick (or ordinary construction) refers to a building having brick or other masonry exterior walls [illegible]

2 The terms protected and unprotected areas, described earlier, refer to the presence or absence of organized firefighting services.

3 [illegible]

4 Information on mutual and independent company insurance was included in some State reports [illegible] (See table 11 [illegible])

5 [illegible]

6 [illegible]

7 Breakdown by types of companies was not available for North Carolina; hence, the amounts in the totals columns [illegible]

Table 5.—FIRE INSURANCE COSTS, LOSSES, AND LOSS RATIOS ON BRICK[1] BUILDINGS IN UNPROTECTED AREAS:[2] 1948–52

State	Stock company insurance			Mutual and independent company insurance[3]			Totals—stock and mutual insurance		
	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio
1	2	3	4	5	6	7	8	9	10
Alabama[4]									
Arizona	[illegible]	$179,[illegible]	42.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arkansas	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
California	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Colorado	174,[illegible]	[illegible]	[illegible]				174,[illegible]	[illegible]	[illegible]
Connecticut	126,877	[illegible]	2.6	15,[illegible]	780	[illegible]	142,[illegible]	4,[illegible]	3.1
Delaware[4]									
Florida	[illegible]	27,[illegible]	[illegible]	27,[illegible]	4,[illegible]	14.6	[illegible]	41,[illegible]	11.2
Georgia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Idaho	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Illinois	[illegible]	[illegible]	[illegible]	[illegible]	4,[illegible]	3.7	1,[illegible]	[illegible]	[illegible]
Indiana	1,[illegible]	[illegible]	[illegible]				1,[illegible]	[illegible]	[illegible]
Iowa	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	43,711	12.2
Kansas	[illegible]	[illegible]	[illegible]	[illegible]	7,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kentucky	[illegible]	[illegible]	[illegible]	27,[illegible]	1,[illegible]	4.6	[illegible]	[illegible]	[illegible]
Louisiana	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Maine	[illegible]	[illegible]	1.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.[illegible]
Maryland	[illegible]	14,677	4.[illegible]	[illegible]	3,[illegible]	4.[illegible]	[illegible]	17,771	4.3
Massachusetts	107,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11.[illegible]	[illegible]	[illegible]	[illegible]
Michigan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.[illegible]	[illegible]	[illegible]	[illegible]
Minnesota	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mississippi	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Missouri	1,116,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]
Montana[4]									
Nebraska	72,[illegible]	[illegible]	[illegible]	[illegible]	4,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nevada	[illegible]	1,[illegible]	[illegible]				[illegible]	1,[illegible]	[illegible]
New Hampshire[4]									
New Jersey	117,[illegible]	[illegible]	[illegible]	4,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New Mexico	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
New York	[illegible]	172,[illegible]	[illegible]	72,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31.0
North Carolina[6]							[7]1,315,[illegible]	[7]445,[illegible]	34.1
North Dakota[4]									
Ohio	[illegible]	[illegible]	[illegible]	130,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Oklahoma	772,[illegible]	[illegible]	[illegible]				772,[illegible]	[illegible]	[illegible]
Oregon	140,[illegible]	[illegible]	17.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12.[illegible]
Pennsylvania	[illegible]	[illegible]	[illegible]	[illegible]	141,[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]
Rhode Island	42,[illegible]	[illegible]	[illegible]	5,[illegible]	0	0.0	47,172	[illegible]	[illegible]
South Carolina[4]									
South Dakota	[illegible]	[illegible]	[illegible]	[illegible]	0	0.0	[illegible]	[illegible]	[illegible]
Tennessee	[illegible]	[illegible]	71.[illegible]				[illegible]	[illegible]	71.7
Texas	1,[illegible]	[illegible]	[illegible]				1,[illegible]	[illegible]	[illegible]
Utah	[illegible]	17,[illegible]	[illegible]				[illegible]	17,[illegible]	12.2
Vermont	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Virginia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Washington	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
West Virginia	[illegible]	[illegible]	[illegible]	7,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wisconsin[6]	[illegible]	[illegible]	[illegible]	[illegible]	7,[illegible]	14.[illegible]	[illegible]	[illegible]	[illegible]
Wyoming	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
United States total	17,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7,[illegible]	[illegible]

[1] The term brick (or ordinary construction) refers to a building having brick or other masonry exterior walls [illegible] construction, such as [illegible].

[2] The terms protected and unprotected areas [illegible] refer to the presence or absence of organized fire protection [illegible].

[3] [illegible] company insurance not included in some State reported data. (See table [illegible] for such [illegible].)

[4] [illegible]

[5] [illegible]

[6] [illegible]

[7] [illegible] by types of companies was not available for North Carolina; hence, the amounts in the totals [illegible].

had loss ratios of more than 70 percent. A total of 6 States had loss ratios in excess of 50 percent, and 13 States had loss ratios of less than 20 percent each. This table shows overall premium payments for brick unprotected buildings of nearly $21 million and losses of $7.6 million, or a loss ratio of 36.6 percent.

Table 6 shows the premium costs, losses, and loss ratios for frame buildings in protected areas.

Again the range of loss ratios is such that interpretation for implications are not easily made. A few schools, in certain sections of the United States, that have combustible buildings have put in partial or extensive sprinkler systems. It was not possible to report here the effect of sprinkler systems on school loss ratios. Twelve States reported loss ratios in excess of 50 percent and 10 reported loss ratios of less than 20 percent. The overall loss ratio for stock companies was 32.7 percent; for mutual and independent companies, 22.6 percent; and for both stock and mutual companies, 31.9 percent. As in the other tables the loss ratio indicates the relationship between the premiums received and the loss indemnities paid.

Table 7 reports the premiums collected, losses paid, and loss ratios for frame unprotected buildings.

For frame unprotected buildings, the stock company loss ratio was about 33.7 percent and the mutual loss ratio about 27.6 percent. For both stock and mutual companies the premium collection was nearly $17 million and the loss just under $6 million; the loss ratio was 33.6 percent.

Some insurance authorities feel that insurance risk rating should be adjusted to reflect the actual and potential loss hazards involved. This would imply that, over a period of years and with a number of cases, loss ratios might be somewhat comparable for buildings with various types of construction. In order to obtain a better comparison of losses on the basis of types of construction, a tabulation was made of all fire-resistive, brick, and frame buildings. This is shown in table 8.

Table 8 shows that during the 5-year period premiums of $21.6 million were collected on fire-resistive buildings and that the losses paid were a little over $5 million. The loss ratio was 24.4 percent. For brick buildings the total premium collection was something over $65 million, the losses about $34 million, and the loss ratio about 39.2 percent. For frame buildings the premiums collected were about $35 million, losses about $11.5 million, and the loss ratio about 32.7 percent. These ratios are not necessarily indicative of the risk involved in the different types of buildings but may more nearly be indications of the rating relationships for the various classes of buildings.

It also seemed desirable to determine whether the rates for buildings in protected areas and in unprotected areas were indicative of the risks involved. To this end all data for the various classes of buildings

Table 6.—FIRE INSURANCE COSTS, LOSSES, AND LOSS RATIOS ON FRAME BUILDINGS IN PROTECTED AREAS:[1] 1948–52

State	Stock company insurance			Mutual and independent company insurance[2]			Totals—stock and mutual insurance		
	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio
1	2	3	4	5	6	7	8	9	10
Alabama[4]									
Arizona	573, [illegible]	253, 327	44. [illegible]	53, 904	814	0. [illegible]	627, 014	253, 341	42. 0
Arkansas	388, 345	130, 210	34. [illegible]				388, 345	130, 210	34. 1
California	4, 628, 546	880, 640	19. [illegible]				4, 628, 546	880, 640	19. 2
Colorado	114, 880	87, 316	76. [illegible]				114, 880	87, 316	76. 2
Connecticut	404, 330	236, 323	58. [illegible]	14, 316	7, [illegible]	48. [illegible]	418, 646	243, 337	58. 6
Delaware[4]									
Florida	418, 747	97, 018	23. [illegible]	28, 330	88	. [illegible]	446, [illegible]	98, [illegible]	21. 6
Georgia	607, 256	176, 600	29. 1	101, 919	29, 621	29. [illegible]	709, 217	206, 321	29. 1
Idaho	213, 018	24, 100	11. [illegible]	4, 070	66	2. [illegible]	217, 088	24, 166	10. 6
Illinois	328, 108	160, 389	54. [illegible]	26, 148	12, 323	54. 7	354, 256	173, 012	53. 6
Indiana	246, 887	33, 698	13. 7				246, 887	33, 698	13. 7
Iowa	168, 048	82, 087	48. [illegible]	40, 098	2, 349	6. [illegible]	208, 146	84, 336	40. 5
Kansas	98, [illegible]	42, 136	43. 7	18, 866	21, 344	117. [illegible]	116, 866	63, [illegible]	54. 4
Kentucky	147, 894	55, 860	37. [illegible]	6, 022	17	0. [illegible]	153, 916	55, 877	36. 3
Louisiana	488, 364	243, 167	50. [illegible]				488, 364	243, 167	50. 4
Maine	440, 787	26, 890	6. [illegible]	80, 260	40, 844	51. [illegible]	520, 046	68, 234	13. 0
Maryland	158, 611	113, 018	72. [illegible]	10, 102	2, 762	26. [illegible]	168, 713	117, 780	69. 8
Massachusetts	981, 330	386, 687	42. [illegible]	263, 025	24, 373	9. [illegible]	1, 264, 955	410, 060	32. 7
Michigan	200, 080	33, 040	16. [illegible]	21, 137	3, 044	11. [illegible]	221, 218	36, 084	17. 7
Minnesota	158, 371	16, 095	11. [illegible]	40, 076	2, 260	5. [illegible]	198, 447	18, 355	10. 0
Mississippi	124, 386	117, 270	93. [illegible]	13, 679	3, 026	27. [illegible]	138, 065	120, 296	87. 0
Missouri	223, 830	41, 722	18. [illegible]	26, 034	290	1. [illegible]	249, 864	42, 012	16. 9
Montana[4]									
Nebraska	54, 626	43, 623	79. [illegible]	9, 929	14	0. [illegible]	64, 555	43, 637	67. 6
Nevada	64, 433	22, 167	34. [illegible]				64, 433	22, 167	34. 4
New Hampshire									
New Jersey	531, 468	177, 777	33. [illegible]	19, 736	1, 285	6. [illegible]	551, 204	179, 062	32. 5
New Mexico	119, 108	31, 618	26. [illegible]				119, 108	31, 618	26. 5
New York	994, 421	294, 181	29. [illegible]	78, 708	12, 010	15. 2	1, 073, 129	306, 191	27. 6
North Carolina[5]							[6] 348, 688	[6] 111, 177	31. 8
North Dakota[4]									
Ohio	322, 000	83, 403	25. [illegible]	43, 186	4, 603	10. [illegible]	365, 186	87, 046	24. 0
Oklahoma	205, 894	108, 708	53. [illegible]				205, 894	108, 708	53. 0
Oregon	825, 694	227, 814	27. [illegible]	200, 018	49, 243	25. [illegible]	1, 025, 872	277, 057	27. 0
Pennsylvania	673, 088	287, 831	42. 7	38, 886	6, 070	16. [illegible]	711, 974	293, 901	41. 3
Rhode Island	126, 004	41, 812	33. [illegible]	30, 735	8, 132	26. [illegible]	156, 739	49, 944	32. 7
South Carolina[4]									
South Dakota	48, 782	9, 422	20. [illegible]	12, 334	3, 420	28. [illegible]	60, 116	12, 842	21. 0
Tennessee	213, 282	140, 110	64. 7				213, 282	140, 110	64. 7
Texas	807, 034	494, 380	58. [illegible]				807, 034	494, 380	58. 0
Utah	128, 140	3, 800	2. [illegible]				128, 140	3, 800	2. 6
Vermont	21, 499	1, 183	5. [illegible]	20, 718	61	. [illegible]	42, 208	1, 244	2. 9
Virginia	171, 270	241, 141	140. 7	30, 077	66, 579	215. [illegible]	203, 350	307, 719	152. 1
Washington	49, 411	11, 237	22. [illegible]	2, 876	66	7. [illegible]	52, 287	11, 303	21. 6
West Virginia	178, 081	120, 091	68. [illegible]	4, 010	129	3. [illegible]	182, 091	120, 220	66. 5
Wisconsin[5]	131, 294	43, 751	33. [illegible]	33, 000	2, 763	8. 1	164, 294	46, 514	24. 6
Wyoming	67, 380	1, 123	1. 7				67, 380	1, 123	1. 7
United States total	14, 413, 627	3, 269, 687	22. 7	1, 251, 726	306, 186	23. 0	16, 118, 794	3, 787, 230	21. 9

[1] The terms protected and unprotected areas, described earlier, refer to the presence or absence of organized firefighting services.
[2] Information on mutual and independent company insurance not included in some State reported data. (See table 11 for such additional data.)
[3] Reported in section III under State operated programs.
[4] Data for these States not available to State department of education officials.
[5] State-operated parts of total insurance program reported in section III.
[6] Breakdown by types of companies was not available for North Carolina; hence, the amounts in the totals columns exceed sums of other columns.

Table 7.—FIRE INSURANCE COSTS, LOSSES, AND LOSS RATIOS ON FRAME BUILDINGS IN UNPROTECTED AREAS:[1] 1948–52

State	Stock company insurance			Mutual and independent company insurance[2]			Totals—stock and mutual insurance		
	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio
1	2	3	4	5	6	7	8	9	10
Alabama[5]									
Arizona	$175,312	$40,664	23.2	$15,100	694	[illegible]	$190,411	$40,678	[illegible]
Arkansas	650,608	287,154	44.1				650,608	287,154	44.1
California	1,734,748	319,845	18.4				1,734,748	319,845	18.4
Colorado	165,537	28,618	17.1				165,537	28,618	17.1
Connecticut	197,682	12,440	6.3	12,369	319	2.6	209,052	12,759	6.1
Delaware[4]									
Florida	307,917	74,027	[illegible]	8,400	10,607	126.7	376,313	84,634	[illegible]
Georgia	1,146,820	467,440	[illegible]	57,848	8,420	15.0	1,204,668	465,870	37.4
Idaho	138,610	18,311	13.2	15,574	2,686	17.0	154,184	20,997	13.6
Illinois	445,035	113,672	25.4	100,839	28,394	28.0	545,874	142,116	26.0
Indiana	181,514	9,836	5.4				181,514	9,836	5.4
Iowa	195,061	64,888	[illegible]	47,685	3,081	6.0	238,776	58,619	24.5
Kansas	142,919	72,670	[illegible]	79,704	14,472	18.0	222,676	87,042	39.1
Kentucky	432,602	182,110	42.1	3,064	260	8.0	435,666	182,371	42.0
Louisiana	666,702	231,388	[illegible]				666,702	231,388	[illegible]
Maine	278,571	90,881	32.4	168,386	71,494	42.6	437,[illegible]	[illegible]	37.0
Maryland	146,838	28,887	19.7	16,451	2,780	17.0	163,289	31,686	19.4
Massachusetts	151,607	48,722	[illegible]	67,370	12,726	18.9	218,977	62,478	28.6
Michigan	314,794	21,038	6.8	56,016	21,039	37.6	370,810	42,011	11.4
Minnesota	264,901	95,982	37.6	74,260	20,385	27.8	339,161	116,368	34.3
Mississippi	437,362	207,548	47.6	36,694	17,066	47.0	474,056	224,614	48.0
Missouri	363,760	126,398	34.7	24,478	1,717	7.0	[illegible],184	127,015	31.1
Montana[4]									
Nebraska	120,432	8,915	7.2	24,078	1,121	4.6	145,510	10,036	6.8
Nevada	25,308	2,572	10.1				25,308	2,572	10.1
New Hampshire[4]									
New Jersey	120,730	15,062	12.5	4,280	30	.7	[illegible]	15,092	11.9
New Mexico	155,160	39,219	25.2				155,160	39,219	25.2
New York	662,347	249,335	37.6	106,330	49,844	47.2	768,677	299,179	38.9
North Carolina[6]							[6] 673,759	[6] 287,138	42.5
North Dakota[5]									
Ohio	116,200	38,740	[illegible]	21,083	4,100	20.0	137,283	42,840	29.7
Oklahoma	470,747	190,388	40.4				470,747	190,388	40.4
Oregon	670,118	120,460		181,656	51,170	28.0	851,774	171,630	20.7
Pennsylvania	[illegible]	170,573	44.3	92,979	26,071	28.0	472,[illegible]	196,644	41.2
Rhode Island	41,088	86,304	210.2	10,219	0	0.0	51,307	86,304	168.4
South Carolina[5]									
South Dakota	167,969	25,385	15.0	42,480	10,154	23.9	210,449	[illegible]	19.7
Tennessee	614,094	246,352	40.0				614,094	246,352	40.0
Texas	1,100,[illegible]	[illegible]	42.6				1,100,[illegible]	[illegible]	42.6
Utah	32,080	6,377	19.1				32,080	6,377	19.1
Vermont				674	0	0.0	674	0	0.0
Virginia	[illegible]	[illegible]	71.9	93,010	[illegible]	[illegible]	[illegible]	[illegible]	62.7
Washington	7,[illegible]	1,142	[illegible]	[illegible]	0	0.0	[illegible]	1,142	14.2
West Virginia	572,[illegible]	212,[illegible]	37.2	3,012	[illegible]	[illegible]	575,[illegible]	212,[illegible]	37.1
Wisconsin[5]	105,657	48,308	45.9	25,108	7,994	31.1	130,[illegible]	[illegible]	42.3
Wyoming	[illegible]	15,[illegible]	1.9				[illegible]	15,[illegible]	1.9
United States total	14,928,294	5,609,046	38.7	1,377,130	380,080	27.6	16,678,091	5,790,041	[illegible]

[1] The terms protected and unprotected areas, described earlier, refer to the presence or absence of organized firefighting services.
[2] Information on mutual and independent company insurance not included in some State reported data. (See table 11 for such additional data.)
[3] Reported in section III under State operated programs.
[4] Data for these States not available to State department of education officials.
[5] State operated parts of total insurance program reported in section III.
[6] Breakdown by types of companies was not available for North Carolina; hence, the amounts in the totals columns exceed sums of other columns.

Table 8.—COMPARISON OF FIRE INSURANCE COSTS, LOSSES, AND LOSS RATIOS ON BUILDINGS IN ALL LOCATIONS, BY TYPES OF CONSTRUCTION: 1948–52

State	Fire-resistive			Brick			Frame		
	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio
1	2	3	4	5	6	7	8	9	10
Alabama [1]									
Arizona	[illegible]	[illegible]	14.[illegible]	[illegible]	[illegible]	41.[illegible]	[illegible]	[illegible]	31.0
Arkansas	215,116	[illegible]	4.7	1,0[illegible]	[illegible]	47.[illegible]	1,[illegible],571	417,[illegible]	41.4
California	[illegible]	[illegible]	[illegible]	[illegible]	1,442,467	[illegible]	[illegible]	1,[illegible]	18.6
Colorado	180,[illegible]	74,[illegible]	71.[illegible]	[illegible]	478,73[illegible]	[illegible]	[illegible]	116,1[illegible]	41.0
Connecticut	[illegible]	73,61[illegible]	14.[illegible]	1,[illegible]	847,[illegible]	[illegible]	[illegible]	[illegible]	41.1
Delaware [2]									
Florida	2[illegible],157	25,[illegible]	9.[illegible]	2,[illegible],170	[illegible]	20.1	[illegible]	1[illegible]	[illegible].1
Georgia	[illegible],745	61,[illegible]	16.0	2,019,[illegible]	[illegible]	[illegible]	1,[illegible]	472,[illegible]	[illegible].1
Idaho	[illegible]	3,476	9.[illegible]	[illegible],157	[illegible]	[illegible]	370,[illegible]	41,1[illegible]	12.0
Illinois	1,220,001	213,771	1[illegible]	[illegible]	2,070,044	[illegible]	[illegible]	717,[illegible]	[illegible].1
Indiana	[illegible]	157,[illegible]	[illegible]	3,103,401	[illegible]	21.[illegible]	407,101	[illegible]	[illegible].3
Iowa	372,[illegible]	37,[illegible]	[illegible]	1,[illegible]	[illegible],777	31.[illegible]	410,[illegible]	140,[illegible]	30.0
Kansas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	44.4
Kentucky	[illegible]	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]	41.1
Louisiana	102,04[illegible]	1[illegible],344	78.[illegible]	1,[illegible],730	1,[illegible],730	64.[illegible]	[illegible]	[illegible]	[illegible]
Maine	10[illegible],074	5,371	4.[illegible]	[illegible]	167,712	18.[illegible]	1,[illegible]	[illegible]	[illegible]
Maryland	[illegible],780	65,001	14.[illegible]	1,461,370	[illegible],470	[illegible]	[illegible]	[illegible]	44.9
Massachusetts	4[illegible],780	111,045	[illegible].1	4,012,[illegible]	1,707,[illegible]	24.[illegible]	1,[illegible]	438,404	[illegible].1
Michigan	1,015,[illegible]	[illegible]	[illegible]	[illegible]	817,4[illegible]	[illegible]	[illegible]	[illegible]	14.4
Minnesota	640,647	[illegible]	[illegible]	1,700,[illegible]	275,361	14.7	410,[illegible]	[illegible]	[illegible].1
Mississippi	75,0[illegible]	[illegible]	74.[illegible]	[illegible]	484,1[illegible]	[illegible]	712,1[illegible]	[illegible]	[illegible]
Missouri	[illegible]	[illegible]	17.[illegible]	2,[illegible],175	1,[illegible]	[illegible]	[illegible]	108,042	[illegible].7
Montana [1]									
Nebraska	313,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	37.1	311,101	[illegible]	34.4
Nevada	[illegible],150	0	0.0	167,51[illegible]	[illegible],477	15.[illegible]	60,730	[illegible],700	[illegible]
New Hampshire [1]									
New Jersey	[illegible]	1[illegible],587	[illegible]	3,[illegible]	[illegible]	24.[illegible]	[illegible]	[illegible]	[illegible].4
New Mexico	[illegible],334	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	374,[illegible]	[illegible]	[illegible].1
New York	3,0[illegible],130	[illegible]	[illegible]	4,[illegible]	2,[illegible]	64.[illegible]	1,[illegible]	[illegible],491	[illegible].3
North Carolina [3]	[illegible]	[illegible]	34.[illegible]	2,[illegible]	[illegible]	32.[illegible]	1,020,141	[illegible]	[illegible].7
North Dakota [1]									
Ohio	1,[illegible]	[illegible],141	13.[illegible]	2,444,[illegible]	[illegible]	20.1	[illegible]	[illegible]	[illegible]
Oklahoma	275,0[illegible]	74,[illegible]	27.[illegible]	1,[illegible],774	1,[illegible]	[illegible]	674,[illegible]	[illegible]	44.[illegible]
Oregon	1[illegible],273	42,1[illegible]	[illegible].7	1,[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible],717	[illegible].1
Pennsylvania	2,1[illegible],157	778,[illegible]	[illegible]	6,[illegible]	3,443,[illegible]	[illegible]	1,1[illegible]	[illegible]	41.3
Rhode Island	128,4[illegible]	4,7[illegible]	3.[illegible]	[illegible]	[illegible],947	[illegible]	[illegible]	[illegible]	[illegible].9
South Carolina [1]									
South Dakota	[illegible]	3,[illegible]	7.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].1
Tennessee	317,[illegible]	142,077	[illegible]	[illegible]	1,[illegible]	64.[illegible]	[illegible]7,417	[illegible]	41.[illegible]
Texas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Utah	[illegible],213	6,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Vermont	474,7[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.1	[illegible],377	1,344	2.9
Virginia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Washington	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
West Virginia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wisconsin [3]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wyoming	[illegible]	77[illegible]	3.[illegible]	[illegible]	17,[illegible]	5.[illegible]	[illegible]	[illegible]	[illegible].1
United States total	[illegible]	[illegible]	24.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]5,097,[illegible]	11,4[illegible]	[illegible].7

[1] Reported in section III under State-operated programs.
[2] Data for these States not available to State departments of education officials.
[3] State operated parts of total insurance programs reported in section III.

were assembled into groups representing protected and unprotected areas. This is shown in table 9.

This table shows premiums collected in protected areas of over $102 million, losses paid of over $36 million, with a loss ratio of about 35.7 percent. For buildings in unprotected areas the collections were about $41 million, with losses paid at a little over $14 million; and the loss ratio was about 34.7 percent. As in the preceding table, these ratios are not measures of the risk involved but probably may be indicative of the equity of the rating schemes for the two different groups.

The overall data on premiums collected, losses paid, and loss ratios for all classes of school buildings in both the protected and unprotected areas are summarized in table 10.

The information in this and previous tables is limited to data provided by the States. This fact accounts for some of the blank spaces in some of the State tabulations. One illustration is that North Carolina provided only total summaries for each of the classes. As might be expected, with more cases the loss ratio ranges were decreased. For all stock company coverages five States reported loss ratios in excess of 50 percent, two reported loss ratios of less than 10 percent, and seven showed loss ratios of less than 20 percent. For both stock and mutual companies, for all buildings, Louisiana showed a loss of 56.1 percent; Oklahoma, 58.3 percent; South Dakota, 53.1 percent; Tennessee, 57 percent; and Texas, 55 percent. Twelve showed loss ratios of between 20 and 30 percent. For all stock company coverage the loss ratio was about 36.4 percent; for mutual and independent companies, about 26.0 percent; and for both stock and mutuals, about 35.4 percent.

As indicated in table 10, the premium payments to, and losses paid by, the stock and mutual and independent companies were recorded as reported by the States. However, some States which had information on other coverage did not seem to have data on mutual coverage. These data were made available directly from the Mutual Insurance Advisory Association and are included in table 11.

Data for stock company coverage are the same as reported in table 10. The data on mutual and independent costs and losses are as reported by the States for those States reporting; however, such data were not available from State reports for Arkansas, California,[1] Colorado, Indiana, Louisiana, Nevada, New Mexico, Oklahoma, Tennessee, Texas, Utah, and Wyoming. These are in totals, but not by the different classes, and were taken from a report compiled by the Mutual Insurance Advisory Association. They are included in the

[1] California mutual reported in letter from State Department but not included in tabulation obtained through the Insurance Department.

TABLE 9.—COMPARISON OF FIRE INSURANCE COSTS, LOSSES, AND LOSS RATIOS ON ALL BUILDINGS, FOR ALL TYPES OF CONSTRUCTION, IN PROTECTED AND UNPROTECTED AREAS:[1] 1946–52

State	Protected			Unprotected		
	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio
1	2	3	4	5	6	7
Alabama[2]						
Arizona	[illegible]	[illegible]	38.6	[illegible]	[illegible]	49.7
Arkansas	1, [illegible]	[illegible]	34.7	1, [illegible]	[illegible]	48.3
California	[illegible]	2, [illegible]	37.2	1, [illegible]	[illegible]	15.9
Colorado	1, [illegible]	[illegible]	32.6	[illegible]	[illegible]	30.1
Connecticut	2, [illegible]	[illegible]	28.4	[illegible]	[illegible]	4.5
Delaware[3]						
Florida	2, [illegible]	[illegible]	29.7	[illegible]	[illegible]	
Georgia	2, [illegible]	[illegible]	33.9	1, [illegible]	[illegible]	14.6
Idaho	[illegible]	[illegible]	28.1	[illegible]	[illegible]	29.1
Illinois	6, [illegible]	2, [illegible]	37.4	1, [illegible]	[illegible]	32.3
Indiana	2, [illegible]	[illegible]	19.5	1, [illegible]	[illegible]	16.0
						24.5
Iowa	2, [illegible]	[illegible]	22.5	[illegible]	[illegible]	16.6
Kansas	1, [illegible]	[illegible]	45.0	1, [illegible]	[illegible]	48.0
Kentucky	1, [illegible]	[illegible]	46.5	1, [illegible]	[illegible]	44.1
Louisiana	1, [illegible]	1, [illegible]	62.6	1, [illegible]	[illegible]	29.4
Maine	1, [illegible]	[illegible]	12.9	[illegible]	[illegible]	22.5
Maryland	1, [illegible]	[illegible]	44.2	[illegible]	[illegible]	10.1
Massachusetts	6, [illegible]	2, [illegible]	33.5	[illegible]	[illegible]	29.1
Michigan	2, [illegible]	1, [illegible]	31.4	1, [illegible]	[illegible]	7.9
Minnesota	2, [illegible]	[illegible]	16.5	[illegible]	[illegible]	19.9
Mississippi	[illegible]	[illegible]	27.3	1, [illegible]	[illegible]	37.0
Missouri	2, [illegible]	[illegible]	23.9	1, [illegible]	[illegible]	44.9
Montana[4]						
Nebraska	[illegible]	[illegible]	23.9	[illegible]	[illegible]	15.2
Nevada	[illegible]	[illegible]	20.6	[illegible]	[illegible]	8.9
New Hampshire[3]						
New Jersey	4, [illegible]	1, [illegible]	24.6	[illegible]	[illegible]	28.7
New Mexico	[illegible]	[illegible]	23.2	[illegible]	[illegible]	22.9
New York	7, [illegible]	3, [illegible]	31.9	1, [illegible]	[illegible]	31.9
North Carolina[2]	2, [illegible]	[illegible]	32.4	2, [illegible]	[illegible]	32.4
North Dakota[3]						
Ohio	[illegible]	[illegible]	25.6	[illegible]	[illegible]	22.9
Oklahoma	1, [illegible]	[illegible]	20.3	1, [illegible]	[illegible]	27.3
Oregon	[illegible]	[illegible]	23.6	1, [illegible]	[illegible]	19.2
Pennsylvania	[illegible]	2, [illegible]	41.8	1, [illegible]	1, [illegible]	64.2
Rhode Island	[illegible]	[illegible]	16.5	[illegible]	[illegible]	224.9
South Carolina[2]						
South Dakota	[illegible]	[illegible]	70.1	[illegible]	[illegible]	28.9
Tennessee	[illegible]	1, [illegible]	29.9	1, [illegible]	[illegible]	27.4
Texas	[illegible]	2, [illegible]	77.4	2, [illegible]	[illegible]	22.5
Utah	[illegible]	[illegible]	6.3	[illegible]	[illegible]	15.3
Vermont	[illegible]	[illegible]	6.1	[illegible]	[illegible]	22.9
Virginia	1, [illegible]	[illegible]	28.1	1, [illegible]	[illegible]	27.9
Washington	[illegible]	[illegible]	24.7	[illegible]	[illegible]	24.3
West Virginia	1, [illegible]	[illegible]	14.7	1, [illegible]	[illegible]	22.2
Wisconsin[4]	1, [illegible]	[illegible]	26.6	[illegible]	[illegible]	20.6
Wyoming	[illegible]	[illegible]	2.7	[illegible]	[illegible]	18.7
United States total	[illegible]	[illegible]	28.7	[illegible]	[illegible]	24.7

[1] The terms protected and unprotected areas, described earlier, refer to the presence or absence of organized fire-fighting services.

[2] Included in section III under State organized programs.

[3] Data for these States not available on State department of education offices.

[4] State-operated parts of total insurance programs reported in section III.

Table 10.—SUMMARY OF STATE REPORTED FIRE INSURANCE COSTS, LOSSES, AND LOSS RATIOS, FOR ALL BUILDINGS IN ALL LOCATIONS AND FOR ALL TYPES OF CONSTRUCTION: 1948–52

State	Stock company insurance			Mutual and independent company insurance [1]			Totals—stock and mutual insurance		
	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio	Overall premiums	Overall losses	Percent of loss ratio
1	2	3	4	5	6	7	8	9	10
Alabama [2]									
Arizona	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40.0	[illegible]	[illegible]	[illegible]
Arkansas	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
California	10, 714, 173	[illegible]	[illegible]				10, 714, 173	[illegible]	[illegible]
Colorado	[illegible]	[illegible]	48.5				[illegible]	[illegible]	[illegible]
Connecticut	2, 711, [illegible]	[illegible]	[illegible]	115, [illegible]	8, 740	[illegible]	[illegible]	[illegible]	[illegible]
Delaware [2]									
Florida	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	20.7
Georgia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Idaho	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Illinois	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14.8	[illegible]	[illegible]	[illegible]
Indiana	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Iowa	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kansas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kentucky	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Louisiana	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Maine	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Maryland	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Massachusetts	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Michigan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Minnesota	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mississippi	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Missouri	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Montana [3]							[illegible]	[illegible]	[illegible]
Nebraska	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40.0	[illegible]	[illegible]	[illegible]
Nevada	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
New Hampshire [2]									
New Jersey	[illegible]	[illegible]	[illegible]	[illegible]	3, 777	3.7	[illegible]	[illegible]	[illegible]
New Mexico	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
New York	8, 773, 114	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
North Carolina [4]									
North Dakota [5]							[illegible]	[illegible]	[illegible]
Ohio	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Oklahoma	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Oregon	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pennsylvania	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rhode Island	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
South Carolina [2]									
South Dakota	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tennessee	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Texas	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Utah	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Vermont	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]
Virginia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Washington	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
West Virginia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wisconsin [2]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wyoming	[illegible]	[illegible]	7.5				[illegible]	[illegible]	7.5
United States total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[1] Information on mutual and independent company insurance not included in some State-reported data (See table 11 for such additional data.)
[2] Reported in section III [illegible].
[3] Data for these States not available [illegible] of education officials.
[4] State-reported costs of total insurance [illegible] reported in section III.
[5] Breakdown by types of construction was not available for North Carolina; hence, the amounts in the totals columns exceed sums of other columns.

Table 11.—SUMMARY OF FIRE INSURANCE COSTS, LOSSES, AND LOSS RATIOS, FOR ALL BUILDINGS IN ALL LOCATIONS AND FOR ALL TYPES OF CONSTRUCTION, INCLUDING SUPPLEMENTARY DATA ON MUTUAL INSURANCE FOR CERTAIN STATES: 1948–52

State	Stock company insurance			Mutual and independent company insurance [1]			Totals—stock and mutual insurance		
	Overall premiums	Overall losses	Per cent of loss ratio	Overall premiums	Overall losses	Per cent of loss ratio	Overall premiums	Overall losses	Per cent of loss ratio
1	2	3	4	5	6	7	8	9	10
Alabama [4]									
Arizona	$1,[illegible]	$[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	$1,[illegible]	$[illegible]	[illegible]
Arkansas	2,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]
California	10,714,172	3,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11,[illegible]	[illegible]	[illegible]
Colorado	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]
Connecticut	3,711,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2,[illegible]	[illegible]	31.[illegible]
Delaware [4]									
Florida	3,[illegible]	[illegible]	[illegible]	[illegible],411	[illegible]	22.4	3,110,[illegible]	[illegible]	19.7
Georgia	4,[illegible]	[illegible]	[illegible]	[illegible]	77,[illegible]	[illegible]	4,[illegible]	1,[illegible]	[illegible]
Idaho	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]
Illinois	7,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14.[illegible]	7,[illegible]	[illegible]	[illegible]
Indiana	4,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.0	4,[illegible]	[illegible]	[illegible]
Iowa	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kansas	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,171,[illegible]	[illegible]
Kentucky	[illegible]	[illegible]	[illegible]	[illegible]	14,[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]
Louisiana	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17.0	[illegible]	[illegible]	[illegible]
Maine	1,[illegible]	[illegible]	[illegible]	[illegible]	117,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Maryland	[illegible]	[illegible]	[illegible]	[illegible]	14,[illegible]	[illegible]	[illegible]	771,[illegible]	24.[illegible]
Massachusetts	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Michigan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]
Minnesota	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mississippi	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]
Missouri	[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4,[illegible]	1,[illegible]	[illegible]
Montana [4]									
Nebraska	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]
Nevada	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New Hampshire [4]									
New Jersey	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4,[illegible]	1,[illegible]	[illegible]
New Mexico	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New York	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
North Carolina [6]							[6] [illegible]	[6] [illegible]	[illegible]
North Dakota [4]									
Ohio	4,[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4,[illegible]	1,[illegible]	[illegible]
Oklahoma	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Oregon	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pennsylvania	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rhode Island	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
South Carolina [4]									
South Dakota	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tennessee	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Texas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Utah	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11.0
Vermont	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.0	[illegible]	[illegible]	[illegible]
Virginia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Washington	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
West Virginia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wisconsin [4]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wyoming	[illegible]	[illegible]	7.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.[illegible]
United States total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[1] Data [illegible] by the Mutual Insurance Advisory Association. [illegible]
[2] [illegible]
[3] [illegible]
[4] [illegible]
[5] [illegible]
[6] [illegible] North Carolina; hence, the amounts in the totals [illegible]

columns set up for mutual and independent company insurance and in the totals in the three columns at the right-hand side of the page. In each case the information taken from the M. I. A. A. data are italicized to show the source of data and the totals that are affected by the inclusion are also italicized to indicate the source of the information for this particular table. The inclusion of such data did affect totals and loss ratio percentages in some States. The Arkansas costs, losses, and loss ratios were increased by the inclusion of these data. The Colorado costs and losses were slightly increased but the loss ratio was decreased. The same was true in Indiana and Louisiana.

SUMMARY AND COMMENTS

1. Alabama, North Dakota, and South Carolina reported only under State-operated programs. Wisconsin reported under both the State and commercial programs. North Carolina did not report by classes but did report totals. Hence, totals in each table exceed the sums of the amounts reported by classes for stock and mutual companies.

2. The State departments of education were not able to obtain data on their fire insurance programs in Delaware, Montana, and New Hampshire. The data from Texas seem to indicate that their building classification does not include one designated as fire resistive. In certain other cases, as for frame unprotected buildings in Vermont, the lack of information may indicate inability to secure the data rather than a lack of any buildings of this type.

3. Certain cost-and-loss data, omitted from some State reports and in tables 2 to 10, were obtained from the Mutual Insurance Advisory Association and included as totals in a special table 11. The M. I. A. A. and State reported data differed in 8 States.

Table 12.—COMPARISON OF THE REPORTS OF THE MUTUAL INSURANCE ADVISORY ASSOCIATION AND EIGHT STATE INSURANCE DEPARTMENTS ON INSURANCE PREMIUMS COLLECTED AND LOSSES PAID: 1948–52

State	M. I. A. A.		State insurance department	
	Premiums collected	Losses paid	Premiums collected	Losses paid
1	2	3	4	5
Connecticut	[illegible]	[illegible]	[illegible]	[illegible]
Kansas	[illegible]	[illegible]	[illegible]	[illegible]
New York (including NYC)	[illegible]	[illegible]	[illegible]	[illegible]
South Dakota	[illegible]	[illegible]	[illegible]	[illegible]
Vermont	[illegible]	[illegible]	[illegible]	[illegible]
Virginia	[illegible]	[illegible]	[illegible]	[illegible]
West Virginia	[illegible]	[illegible]	[illegible]	[illegible]
Wisconsin	[illegible]	[illegible]	[illegible]	[illegible]

Information was not available to show why the Mutual Company insurance cost and loss reports exceeded the amount shown from the Connecticut State report. However, for the other seven States, the State cost and loss records exceeded those in the M. I. A. A. offices, and it is possible that some of the State insurance offices had added the local or county mutual school insurance cost and loss data. Information was not available to show the school coverage by these organizations and whether their cost and loss data were reported to the M. I. A. A.

4. This status study does not attempt to evaluate building fire insurance rates or rating practices. Although individual raters might vary their rating techniques, rating, except in a very few States, is done under one of the two generally established rating systems and the resulting rates in the various States should be similar for like risks. Rates should vary as per the actual and potential risks of the various classes of property. Loss ratios on educational buildings for this 5-year period are higher for certain types of buildings. If the data for these 5 years indicate a pattern or trend, it may be desirable to review or revise the rating schedules.

5. As indicated in these tables, the schools in the States reporting paid about $29 million a year during this 5-year period in fire insurance premiums.

6. The loss and loss ratio data should be of vital interest to school officials and administrators. As the writer has pointed out in at least two previous publications,[2] the number of school fires and school fire losses can be reduced by preventive design, construction, and housekeeping practices, and by desirable protection facilities. The average annual fire loss of about $10 million a year shown for the States reporting represents school property and service losses, much of which could have been prevented. The high loss ratios in some of the States merit attention. State department of education leadership in school fire safety might effect desirable safety and economy returns.

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[2] Viles, N. E., *The Custodian At Work*, New York, University Publishing Company, 1941. 291 pp. and Viles, N. E., *School Fire Safety*, Office of Education Bulletin No. 13, 1951. U. S. Government Printing Office, Washington 25, D. C. 10¢.

CORRECTION: Title and odd-page headings of Section III should read, "... STATE-OPERATED SCHOOL INSURANCE PROGRAMS".

Section III

STATE EXPERIENCES IN STATE-OPERATED SCHOOL AND INSURANCE PROGRAMS*

FIVE STATES—Alabama, North Carolina, North Dakota, South Carolina, and Wisconsin—have State-operated insurance programs that include public elementary and secondary schools. Three of these—Alabama, North Dakota, and South Carolina—did not report data on any commercial coverage on the public elementary and secondary schools and are not included in the tabulations in section II. The North Carolina data on commercial (stock and mutual) coverage were not broken down by classes and are reported only in the totals columns in the tables in section II. Wisconsin data for commercial coverage are shown in section II.

This section provides summaries of each of the five State-operated property insurance programs that apply to public elementary and secondary school plants. These summary reports cover only the State insurance programs where the owners or managers of the insured public properties make regular premium payments to a State insurance fund set up for the purpose of indemnifying for fund insured losses. This study does not apply to any program of financing loss replacements of State-owned school buildings, usually State colleges or universities, from State appropriated reserves or by State assumption of the loss risk with reserves.

The data in this section are not easily compared with the costs and losses in section II which cover both public and nonpublic schools. The data in this section cover only publicly owned property, but in four of the State operated programs may include coverage on schools and various other types of local or State owned structures. The North Carolina program described here is designed only for public elementary and secondary schools. Because of variations in coverage or in the administrative pattern the State programs are not easily compared one with another.

As indicated previously, only one State operated program, that of North Carolina, is limited to public elementary and secondary schools. The other State operated programs reported here do include public school properties. In various instances the data on premium costs, losses, loss ratios, adjustments, and administrative costs for schools

*The following sections have been printed exactly as approved by the five States involved, except in those instances where changes in style were required to conform with the *United States Government Printing Office Style Manual*.

could not be easily segregated from data for other coverages in the State programs. However, since school insurance is included in these State programs, it seemed desirable to summarize each State program. Where feasible, available school insurance data were reported separately and were so indicated.

The data included in these State operated program summaries were developed from State laws, annual and other reports prepared by the State program directors, and by conferences with the directors of the State programs. In some States follow-up conferences were necessary. The summary for each State was returned to the State director one or more times for his corrections and the final summary for each State was returned to the State director for approval (and was approved by him) before being published.

The five summaries are offered as analytical and historical reviews of the State operated insurance programs now being carried on in these five States. Since these summaries *were not intended to be either complimentary or critical* of any State program, no attempt was made to provide editorial evaluations or to point out the good and bad features of any State program. The directors of each State program understood this approach, and although each director proofed and corrected data, not one suggested any revisions that would have changed this approach.

These State programs are not identical for all of the States. As indicated, the State insurance programs in four of the States include other public buildings as well as public schools and one State includes only public elementary and secondary schools as is shown in the summaries. However, this study relates primarily to school building insurance and the term "State school building insurance" is used in the titles of the summaries. While most of the summaries cover total State programs, the school insurance data were segregated and given special attention where possible. To the extent feasible the summary data for each State were grouped into a common pattern to facilitate comparing the different programs.

The following pages provide analytical summaries of the five State operated insurance programs that affect public elementary and secondary schools.

THE ALABAMA STATE INSURANCE FUND INCLUDING STATE SCHOOL BUILDING INSURANCE[1]

The Alabama State insurance program covering public elementary and secondary schools is a part of an overall *State Insurance Fund* program covering public-owned properties of all types scattered throughout the State. Since other properties are covered under the State insurance program and since certain costs have not been pro-

[1] This report is intended to be a factual analysis, neither complimentary nor critical, of features in the State program that apply to public school property insurance.

rated by class of buildings, it is difficult to provide exact cost and loss ratios on school building insurance.

HISTORY

The Alabama State Insurance Fund.—The Insurance Fund was established in 1923, and the authorizing law was amended in 1949. As amended, it authorizes insurance against loss by fire, lightning, windstorm, and hail of all buildings owned by the State or its agencies, or financed by the State, and all school buildings and contents.

Nature of the Alabama State Insurance Fund program.—The State Fund program is in effect a self-supporting State insurance company program which is defined by law and State supervised, but for which the State accepts no financial responsibility except through the availability of a State $100,000 appropriation to serve as an emergency fund—which is after the earned surplus has been exhausted.

In 1952–53 the State Fund insured 6,857 publicly owned buildings, including administrative, capitol, armories, eleemosynary, correction, State college and university, and prison; and also including about 3,493 county and 87 city elementary or secondary school buildings. The total value of all of the classes of property protected was $209,270,000. The total fire coverage was $156,946,000 and the total windstorm coverage $152,212,000.

Growth of the Insurance Fund.—The Insurance Fund has grown steadily throughout the life of the program. However, the reserves and the coverages have increased rapidly since about 1946. Data are not available to show how much these increases were the result of increasing property values and how much for new coverage.

ADMINISTRATION

The State insurance fund is handled as one division of the Department of Finance. The manager of the State insurance fund, Mr. James H. Horn, has five field inspectors and an overall staff of 10 including the manager. These employees are under the Alabama merit or classified personnel service system. Operating expenses, limited by law to 4 percent of the premiums, were for the 1953 fiscal year (closing September 30) about $53,000, or less than 4 percent of the premiums. Expenses cover salaries, travel, equipment, and incidentals, and by legislative appropriation are taken from premium payment incomes. The fund director makes an official annual report and in addition makes frequent progress reports to the director of finance.

Building appraisals.—The State insurance fund, acting for the Department of Finance, is required to establish appraisal values for all buildings covered. A 1949 fund revision law makes it mandatory for the local school officials to certify the property description and location of buildings and contents to be covered and no policies are to be written until the certification has been filed or until the director has waived

this requirement. The fund officials also use the State Department of Education and the State Building Commission data on construction costs as needed in checking building values. In case the director and the owners do not agree on building value it is possible to appoint a third person as arbitrator.

Inspections and Field Service.—Buildings insured are inspected annually, or more often as is necessary, and an inspection report is prepared for each property which provides an analysis of the building structure, use and occupancy, housekeeping conditions, and hazards which might affect fire safety or safety to life. Copies of the report on school buildings are filed with the owners and with the State department of education.

The fund field inspectors cover about 2,000 inspections a year each. This provides frequent check-up service. Detailed inspections of 7 or 8 buildings a working day are not generally feasible; hence, many of these inspections must necessarily be re-checks of conditions found. These men provide guidance service on school fire safety. (Evidence was not available to indicate the relationship between field inspector instruction on fire safety and State department of education leadership in this area.) The field staff men have been appointed deputy State fire marshals and delegated authority to condemn hazardous schools. Fund officials often advise on fire safety factors in building plans and encourage better construction and the development of better protection services.

COVERAGE

As indicated, the fund wrote $156,946,556 fire and $152,212,436 windstorm coverage in 1952–53 on 6,857 buildings and their contents with an estimated value of $209,270,266. This coverage was divided as follows:

Coverage	Fund retained	Reinsured	Total
1	2	3	4
Fire insurance total	$71,[illegible]	$85,[illegible]	$156,946,556
Windstorm insurance total	109,[illegible]	42,[illegible]	152,212,436
Of the above:			
Fire Insurance School[1]			
County Elementary and Secondary	35,[illegible]	34,[illegible]	70,[illegible]
City Elementary and Secondary	1,[illegible]	2,[illegible]	3,[illegible]
Total school fire insurance	36,[illegible]	37,[illegible]	73,947,[illegible]
Windstorm School			
County Elementary and secondary	61,[illegible]	7,71[illegible]	69,[illegible]
City Elementary and secondary	2,[illegible]	[illegible]	3,[illegible]
Total school windstorm	64,[illegible]	8,[illegible]	72,[illegible]

[1] These included 2,4[illegible] county and 37 city school buildings.

State insurance fund coverage on schools is not 100 percent since some of the cities write their coverage with stock and/or mutual companies. State insurance fund officials indicate that there has been some shift from commercial to State coverage on school buildings.

Risk Coverage Policies—Risks covered by the fund shall be insured for not less than 75 percent of value. Value is used here as present worth or replacement cost less depreciation. School property other than rural school properties may, at the option of the director, be insured up to 100 percent of value. Coverage is compulsory, except for separate city-owned school properties specifically exempted, and some of these have voluntarily purchased the fund coverage. There was an increase of 46 city buildings so covered last year. In practice these building values are established as current or sound values which are computed as current replacement costs less accumulated depreciation.

Policies are of the specific schedule type. Each policy is for 1 year, the fiscal year expiring September 30. Reinsurance coverages are for 1 year, renewable 5-year contracts with 5-year term reductions. Coverages on part years are on a time prorata basis. All premiums are due at the beginning of the fiscal year, October 1. By arrangement short term credit may be extended where justifiable. If a school fails to pay, arrangements can be made to deduct premium payment amounts from State moneys due the district. Coverage is for protection against loss by fire, lightning, hail, or windstorm. Some consideration is being given to the legal changes needed to permit writing extended coverage. Coinsurance contracts are written on both fund retained and reinsured coverage when rate conditions make it profitable to do so. On fund coverage coinsured, the coinsurance rate is used to compute the premium and the usual 40 percent premium reduction is applied in the same way as for fund coverage without coinsurance.

RATES AND RATING

School buildings are classified according to location, types, protection, etc., to facilitate risk rating. For instance, a fire-resistive building may have one base rate in a location having ample fire protection but might have a much higher base rate in an area with less protection. Non-fire-resistive buildings have higher rates, and in each case rate penalties and/or credits may be used to indicate the hazard conditions in a particular risk. "Fund" officials indicate that with frequent inspections and detailed reports to the owners the class rating is effective.

The insurance fund law requires that the Alabama Inspection and Rating Bureau (a franchised nongovernmental agency) rating scale be applied to all publicly owned buildings. The rating bureau assesses the rate applicable to the schedule of reinsured buildings, and the

insurance fund applies the rate to buildings having fund retained coverage. Fund officials try to develop rates which are the same or at least comparable to Bureau rates. Rates may be changed as building risk conditions change. Premiums on fund-covered insurance policies are reduced 40 percent. However, the director has authority to reduce premium collections as fund reserves reach certain levels.

REINSURANCE

The director of the Department of Finance is authorized, on the approval of the Governor, to purchase the amount of reinsurance he deems necessary to distribute the risk. Premiums on the part of the risk coverage that is reinsured are computed at *published rates* (with coinsurance reductions where applicable) on annual policies but renewable and with term reductions equivalent to 5-year policies. Nonreinsured or fund retained coverage is at regular *fund rates* for such risks. In 1952–53 the fund reinsured $34,824,000, or about 48 percent of all the county school fire coverage and $7,718,750, or about 11 percent of the windstorm coverage on the same risks. In case of loss on such risks the director collects the reinsurance and settles with the owners.

Data are not now available to permit inclusion here of the history of reinsurance and reinsurance loss ratios, or of comparison of reinsured and nonreinsured loss ratios on elementary and secondary school buildings. Reinsurance is purchased by the fund and might cover one or more buildings on a campus and might cover all or only a part of the coverage on that building. In any case the local board of education insures with the fund, looks to the fund for settlement of losses, and has no reason for direct dealings with the companies writing reinsurance coverage on their buildings.

Reinsurance is by risks with a list, showing each risk and its coverage, which is attached to the master contract policy. There are nine such master contracts made with regular licensed carriers, at full or published rates. Reinsurance is pro rata [2] primary participating. Reinsurance seems to be principally on risks in protected areas. The fund often retains all coverage on small buildings, and particularly nonprotected buildings. Data available indicate that almost 50 percent of the fire and about 11 percent of the windstorm coverage on the county schools for 1952–53 was reinsured. For city schools insured through the fund about 57 percent of the fire and about 20 percent of the windstorm coverage were reinsured.

[2] This expression used in the Alabama program means that the companies reinsuring share in loss payments on a prorata basis and that they are primary participants in loss settlements, meaning that there are no deductibles cared for by State coverage before the reinsurance is applied.

INCOME, LOSSES, AND COSTS

Fund history.—The 1953 annual report of the State insurance fund shows for all fund coverage from October 1, 1923 to October 1, 1953 (a 30-year period) that the:

Income due was:		
Premiums—retained	$11,050,644.28	
Premiums for reinsured	4,837,196.63	
Premiums total due		$15,887,840.91
Less discounts on fund retained insurance		4,229,527.25
Net premiums collected		$11,658,313.66
Other income, interest on bonds, dividends, etc.		628,765.81
Net income		$12,287,079.47

Total premiums *due* were based on the published rates, or ... least the published rate on reinsured property, and a close approximation of nonreinsured properties (schools and other State-covered property).

In analyzing total premium incomes and losses it may be desirable to separate fund retained and reinsured coverage premiums. Fund retained premiums less the 40 percent discounts indicate the net premium income available to pay loss indemnities on fund-covered risks.

Fund retained coverage for the 30-year period:	
Net premiums (after discounts)	$6,821,117.03
Fund retained coverage losses	4,340,264.68
Percent of loss ratio to premium income on fund covered risks	63.6

However, during this 30-year period the premiums on reinsured coverage were $4,837,196.63. During this same period $4,720,876.91 was paid out in reinsurance costs and $120,242.44 in reinsurance discounts.

During this 30-year period income from interest on bonds and from other miscellaneous sources was $628,765.81; net premiums on fund retained coverage, $6,821,117.03; loss on reinsurance, $3,922.72; and total net fund income (in excess of discounts and reinsurance costs) was $7,445,960.12. Fund carried coverage loss ratio was 58.2 percent of the total net (retained) income.

The operating expenses, including such items as salaries, communications, travel, equipment, etc., but not rentals, was $494,563.24. This included $37,802 spent for catastrophe insurance and was about $134,200 less than the interest and miscellaneous income and was only about 6.6 percent of the total net income on fund retained coverage.

Underwriting experience, 1952–53 fiscal year.—The State insurance fund report for the fiscal year ending September 30, 1953, combines fund retained and reinsured premiums and losses. For the purpose of

clarifying certain cost and loss ratios these will be separated in the following tabulation:

Fund retained:		
Income earned, 1952–53		$859,281.11
Less discounts on fund coverage		345,407.02
Fund retained premiums		513,874.09
Fund covered risk losses	$100,875.09	
Paid—catastrophe insurance	4,000.00	
Operating expenses	53,329.11	
Total		158,204.20
Net underwriting gain		355,669.89
Income from investments and interest		40,626.08
Net fund gain for year		396,295.97
Fund surplus at end of previous year		2,240,901.67
Fund surplus as of September 30, 1953		2,637,197.64
Reinsurance—for 1952–53 fiscal year:		
Premiums collected and due		492,022.52
Less reinsurance discount		120,242.44
Net reinsurance costs		371,780.08
Less—loss indemnities received		66,134.69
Excess of cost over losses		305,645.39

(Note this is reinsurance experience for only one year.)

Fund surplus and investments.—The State insurance fund balances grew to about $800,000 in the years 1923 to 1946. Since 1946 the gain in reserves has been about $1,840,000. It was indicated that as the reserve grows the amount of reinsurance may be decreased and that when the reserve reaches $5,000,000 it may be possible to drop the reinsurance program. There is also some talk of requesting a change in the law to permit more than 40-percent discount. Note that these reserve funds are supposed to be a trust fund for insurance purposes only.

The $2,644,017.57 balance as of September 30, 1953, included investments and accrued values in Alabama and U. S. Government bonds of about $1,893,000, municipal bonds about $58,000, and with cash on hand and accounts receivable for the remaining part of the $2,637,197.64 surplus. The reported liabilities were $6,819.93.

Losses and loss ratios.—Total fund losses are listed in one of the paragraphs under Fund History. This general summary does not provide segregated loss and loss ratio data on public elementary schools. In making a complete analysis of such school loss ratios it is essential to have data on reinsurance, fund retained coverage, premiums collected, costs, investment incomes, and losses for the years to be

covered. Data were not readily available to provide complete analyses of elementary and secondary loss ratios for the full life of the fund.

Data for the 1952–53 fiscal year show for all fund coverage a loss ratio of almost 20 percent of the fund retained premiums, and about 17 percent on reinsured risks. Note in this connection that the total premium assessment seems to be at published rates, as is the reinsurance, but that the fund credits back to owners 40 percent of the premiums on nonreinsured risks. In the 1952–53 fiscal year discounts were shown for 5-year term insurance for reinsured risks. This seemed to be a new practice and the discount rate was about 22 percent.

During the 30-year period the total $6,663,273.78 fire and windstorm loss indemnities paid by the fund for losses on all risks was about 42 percent of all premiums due at the published rates. However, the fund reinsured some risks and discounted some non-reinsured risk premiums. The total losses, all properties, of all nonreinsured risks during the 30 years were $4,340,264.68 (total losses less reinsurance recoveries), or about 39 percent of the premiums due on such risks or about 63.6 percent of the premiums actually collected on these fund retained risk coverages.

School losses.—As indicated above, data were not readily available to provide an analysis of public elementary and secondary school "Fund" and/or reinsurance costs and loss ratios for the 30-year period. However, the fund authorities have assembled data on losses for certain periods of time. One tabulation shows that for the years 1941 to 1952 inclusive the fund school fire insurance coverage was 49.8 percent of all fire coverage but that fire losses were about 84.6 percent of the total for the period. Loss ratios for these years were not computed since data on premium incomes did not show costs by types of coverage.

The following tabulations show 5 years of loss ratio experience for reinsured and non-reinsured public school coverage. The first tabulation shows the fund premiums (before discount), losses, and loss ratios.

FIVE YEARS OF INSURANCE FUND EXPERIENCE: PUBLIC ELEMENTARY AND SECONDARY SCHOOL FIRE INSURANCE PREMIUMS (BEFORE DISCOUNT), LOSSES AND LOSS RATIOS, FUNDS RETAINED COVERAGE

Item	1947-48	1948-49	1949-50	1950-51	1951-52	5 years
1	2	3	4	5	6	7
Premium due	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fire losses	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Net	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Loss ratio: percent of computed on total premiums	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

However, on fund insured risks a 40-percent discount is due the district. For the 5-year period this should have amounted to about $812,000 and the actual premiums paid on these risks would have been about $1,218,218.00. The actual loss ratio then was about 58 percent and the net fund gain about $503,000 from 5 years of school insurance experience without reinsurance. On reinsured risks the ratio was different. Rates were as per schedule without any rate discount. For these properties—

Total 5-year premiums	$1, 226, 669. 65
Losses	492, 482. 07
Net fund gain	734, 187. 58
Loss ratio percent	40. 15

For these 5 years, 1947–48 through 1951–52, the total fire insurance premiums due at regular rates for reinsured and fund retained (before discount) coverage on elementary and secondary public schools were $3,257,033.03, the losses were $1,207,695.58, and the loss ratio 37.08 percent of the premiums assessed.

However, premium discounts were granted and fund loss ratios are computed on the basis of actual premium collections (after discount). For both the reinsured and the nonreinsured and after the 40-percent discount on the nonreinsured, the public school building fire loss experience was about as follows:

Item	Reinsured	Fund retained (nonreinsured) after discount	Combined
1	2	3	4
Total 5-year premiums	$1, [illegible]	$1, [illegible]	$2, [illegible]
Total 5-year losses	[illegible]	715, 213. 51	1, [illegible]
Net	$734, 187. 58	$503, [illegible]	$1, 237, 192. 07
Loss ratio percent	40. 15	58. 69	50. 69

Fund officials point out that even after the discount public school fund fire insurance premiums were $503,005.51 more than the losses for the 5-year period.

SUMMARY

At the end of its 20th year, the Alabama insurance fund had a surplus of $2,657,197.64. Most of this is invested in State and Federal bonds. Returns from investments equal or exceed current operating costs. The fund's operating costs are low, 40 percent of the premiums on fund retained coverage is credited back to the owner, and fund reserve balances grow each year. Reinsurance premiums in 1952–53 cost about $190,000.

Fund coverages, both reinsured and retained, are increasing. The reinsured fire coverage increased about $9 million and the windstorm about $8 million from 1952 to 1953. During the same year fund retained coverage increases were about $13 million fire, and $14 million windstorm. A State legislative act of 1953 granted school boards in certain large counties, not previously eligible, authority to insure under State coverage if they so desire.

Fund officials give specific attention to a reduction of fire risks in the schools and have a follow-up plan on inspection service. Fund officials deem it unwise to risk too much of the current $2.6 million fund reserve on one risk or one campus. The reinsurance is one means used to limit such fund risk. Reinsured and nonreinsured risks are covered at published rates. However, on a fund retained coverage the owner is allowed a 40 percent reduction in rates. Fund reserves are increasing.

The fund is not responsible for boiler liability and casualty losses. Schools can buy collision and theft on buses. The State appropriates $100,000 annually to the board of adjustment to cover liability on State or municipal vehicles.

THE NORTH CAROLINA PUBLIC SCHOOL INSURANCE FUND INCLUDING STATE BUILDING INSURANCE[1]

The North Carolina State insurance program for public school buildings was developed as a school insurance program and was not a part of another program as was true in some other States. The North Carolina program is different in one other way, in that it is administered by a division under the State Board of Education. This program is new in comparison with other State programs; hence, the experience does not yet cover a long period of years. North Carolina had a State insurance program for State-owned buildings and this program helped in setting up the school building insurance program which is referred to as "The Fund."

HISTORY

Insurance on State owned buildings.—The State of North Carolina has one insurance program for State owned buildings. This includes State owned colleges. This insurance coverage was authorized in 1945. From data available it seems to have the following general characteristics.

1. The program is handled by the State Insurance Department.
2. The Insurance Department estimates anticipated losses for the year. To date these have been running at about $300,000.
3. The Legislature now adds this estimated appropriation to the current balance. The reserve now totals $900,000.

[1] This report is intended to be a factual analysis, neither complimentary nor critical, of the State program of public elementary and secondary school property insurance.

4. In effect this seems to be a State assumed risk and is State self-insurance to the extent covered by the reserve mentioned above.
5. The State-covered property does not contribute to the Fund.
6. In this program for State owned buildings the State now reinsures coverage in excess of $50,000 per risk with domestic companies. (Since this study relates primarily to the State insurance program for public elementary and secondary school buildings, no analysis of the insurance program for State owned buildings is provided.)

Insurance on public elementary and secondary school buildings.—The State developed another type of public building insurance program in 1949 when it authorized the setting up of an insurance program for public elementary and secondary school buildings. This program went into effect July 1, 1949.

In written reports and in conference State officials discussed some of the local thinking back of the establishment of the public elementary and secondary school insurance program. They cited figures to show for the 10-year period 1938 to 1948 prior to the establishment of the State program that the average annual fire coverage for public elementary and secondary school buildings was about $89,587,000 and that the average annual premiums over the 10-year period were about $460,200. They indicated that the fire loss during this 10-year period was about $2,858,000 and that the loss ratio was about 63 percent of the premiums paid for fire protection for these buildings. The annual loss was about 0.3 of 1 percent of the coverage.

1. This State school insurance program covers public elementary and secondary school buildings where titles are vested in the local boards of education.
2. In setting up the program the State granted $50,000 to cover administrative expenses for the first 2 years. After that time the program was to be entirely self-supporting.
3. In order to establish a working fund the General Assembly authorized a working reserve. The General Assembly authorized transferring $2,000,000 from the State Literary Fund. As indicated, this was a transfer and was to be repaid as follows:

> When the reserves in "The Fund" shall be increased by the payment of premiums by the governing boards of county and city administrative school units, or otherwise, to the extent of one million dollars ($1,000,000.00), there shall be transferred from "The Fund" back to the State literary fund the sum of one million dollars ($1,000,000.00), and when "The Fund" shall again be increased to the extent of another one million dollars ($1,000,000.00), there shall be transferred therefrom back to the State literary fund an additional sum of one million dollars ($1,000,000.00), in full reimbursement of the sum of two million dollars ($2,000,000.00), which is authorized to be transferred from the State literary fund by the provisions hereof.

ADMINISTRATION

In effect this insurance program is a statewide optional school cooperative insurance program.

1. The General Assembly authorized the program and established the necessary legal authority for those in charge.
2. The program is under the guidance of the State Board of Education and its appointed officials.
3. Although the Legislature provides the machinery and establishes the program, the State has not assumed financial obligation for losses. Those in charge are supposed to keep the program safe and make it self-supporting within the limits set by the State Legislature.

Control is vested in a Division of Insurance, Thomas B. Winborne, Director, under the State Board of Education. This does not place the Insurance Division under either the Department of Public Instruction or the State Insurance Department. However, Division officials cooperate with the State Department of Public Instruction and the State Insurance Department.

1. With the approval of the State Board of Education, the Division of Insurance operating expenses are taken from premium incomes. The "fund" operating expenses are limited to 10 percent of the premiums collected. Expenses to date have been below this figure.
2. The Division of Insurance works directly with county and independent school district officials. The Division is authorized to approve loss claims and to pay loss indemnities. It is also authorized to refund premium credit during the year. A case of this kind might occur where a high premium was charged but where housekeeping or building improvements lowered the rates during the year and a refund might be in order. The "fund" is authorized to contract insurance with local boards of education on 1-year term policies. As will be pointed out later, the "fund" also has the authority to evaluate the property to be insured, to establish rates of premium payments, to limit coverage between 75 and 100 percent of insurable values, and to reinsure where essential.

COVERAGE

The State program coverage is optional with local school boards. In 1953 it was estimated that the "fund" coverage included about 40 percent (by value) of the public elementary and secondary schools in the State. Under the State program the coverage on each property is supposed to be not less than 75 nor more than 100 percent of the insurable value. A school board may carry other coverage on the same property but this is not generally encouraged and in only one or two instances is the coverage split. Insurance contracts are standard-type policies.

1. The local board pays premiums to the "Fund." These premiums are usually paid at an agreed upon date. In a few cases, where necessary, the Division of Insurance may extend premium credit for 60 days to a district but charges interest on the debt.
2. Local coverage for each district is usually written on a specific policy schedule attachment. Weighted average rates are developed to apply for

that district coverage. Since the State uses a low rate it does not apply a coinsurance rate reduction, neither does it write long-term policies. The local school can purchase fire and lightning or fire and extended coverage protection. As of 1953 it seems that about one-third of the schools were carrying extended coverage protection. The Division of Insurance notifies the local boards when premiums are due. All adjustments in premiums are pro rata since no short-term rates are applied. In cases of loss the local district expects payment to cover all losses up to the face of the policy (meaning the amount on that particular risk). As indicated, such coverage is for 1 year. However, coverage on a particular risk may be cancelled by the State Board if poor housekeeping or some other hazardous conditions in the building do not warrant continuing the coverage.

Local boards are not required to purchase State or "fund" coverage. Data were not available to show what percentage of the State public school property is now insured with the fund. From 1950 to 1953 the "fund" coverage on school properties increased from $41 to $147 million.

FUND RATING AND PROPERTY EVALUATIONS

The Division of Insurance ("the fund") has been in operation only a few years. Some of its operating practices have become routinized and its experiences in premium income and loss ratios are developing gradually. Some of its practices and procedures and the present status of the "fund" are outlined in the following paragraphs.

1. Rate.—The Division of Insurance is authorized to rate the properties insured. To this end the Division has engineers who are supposed to rate each property annually. Rating as now outlined is done by classes according to the National Board of Fire Underwriters city classification, the building protection, and the type of construction. The Division now classifies groups of buildings into eight different classes for rating and uses base rates as points of departure for each particular type of building. Rating men prepare building map outlines similar to the Sanborn maps. Local officials feel that the use of the cancellation of coverage privilege compensates in part for the lack of rate penalty and credit variations which are common under commercial bureau rating. The Division reports back to the local boards and recommends improvements necessary in the building fire safety such as removing of fire hazards and of better housekeeping and maintenance practices.

After transferring the $2,000,000 to the literary fund the Division of Insurance cannot, by law, accumulate reserves in excess of 5 percent of its total liability. However, each property newly insured shall pay at regular rates for at least 5 years regardless of the condition of the "fund." State insurance officials indicate that for the buildings now covered by the "fund," the average fire rates in 1946 were about 61¢ and that under the "fund" program they are being insured for about 30¢ per $100 of insured value.

2. The Board checks building values and with local officials establishes insurable values. Insurable value is replacement cost less deprecia-

tion and also less 5 percent for so-called nonconsumables. Division officials cooperate with the Division of School House Planning in checking building cost levels and use various measures such as the cost per square foot for replacement less depreciation. The rate of depreciation used seems to be ¾ to 2 percent a year with no useable building being depreciated over 50 percent of the total in most instances. (Some other authorities feel that school buildings may depreciate more than 1 percent a year and that building values can drop to lower than 50 percent of the current replacement cost.)

REINSURANCE

A North Carolina insurance law calls for private insurance company reserves equal to 10 times the largest risk. To conform with this law "the fund" with a $2,000,000 reserve should limit its greatest liability to $200,000. This law was used as the basis in deciding what amount of excess insurance to purchase. Since some individual school buildings have insurable values in excess of $1,000,000, this might call for a large State reserve. In 1953 the State Legislature authorized reinsurance of excess coverage or of other reinsurance desired. The Division of Insurance has just purchased from Lloyd's of London a reinsurance policy for $15,000,000 coverage. This excess coverage pattern is similar to automobile insurance in excess of certain deductible amounts.

1. This reinsurance policy insures coverage in excess of $200,000 for each and every loss at each location, with a limit of $1,000,000 each and every loss at each location—that is, the "Fund" assumes the first $200,000 risk on each building covered, then the reinsurance takes over for the next $1,000,000, and if needed "the fund" then assumes the excess above $1,200,000.
2. Under the present arrangement this is a blanket policy providing excess coverage on all buildings insured with the Division of Insurance during the policy year.
3. The premium cost for the first year for the Lloyd's policy is to be $9,750. This is reported to be at a rate of about 6¾ cents per $100. The Division of Insurance reports that it is collecting now about a rate of 17.8 cents per $100 on these buildings.
4. The Lloyd's coverage automatically covers new units coming into the "fund" during the policy year. The Lloyd's policy is a 1-year policy and is to be renegotiated each year.

INCOME, LOSSES, AND COSTS

Since this fund has been in force only a few years, data are not yet available to indicate the trends in losses or in loss ratios. As was noted in 1953, one large loss may materially deplete a fund if ample reserves have not been provided.

Fund and program developments.—Under the optional program "fund" officials indicate that they had not expected immediate rapid and extensive growth of the program. They expected a period during

which the school officials would need to study the possibilities of the program. The following tabulation shows the increase in coverage and net surplus for each of four fiscal years, ending June 30, 1953.

COVERAGE—PREMIUMS AND LOSSES

Date fiscal year ending	Insurance in force	Premiums earned	Fire loss	Percent of loss ratio	Net surplus gain
1	2	3	4	5	6
June 30, 1950	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
June 30, 1951	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
June 30, 1952	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
June 30, 1953	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total and average for 4-year period		[illegible]	[illegible]	[illegible]	[illegible]

As indicated previously, $2,000,000 was transferred from the literary fund to "the fund" to provide a reserve in case of need. The "fund" status together with the assets and liabilities and the surplus to date are shown in the following tabulation.

FUND STATUS

Date	Assets[1]	Liabilities			Surplus to date
		Current obligations[2]	Debt[3]	Total	
1	2	3	4	5	6
December 1951	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
June 1952	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
December 1952	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
June 1953	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[1] Assets include cash on hand, electronic receivable, and investments.
[2] Current obligations as used here cover liabilities for unearned premiums (paid but some time to run) and reserves set aside for claims in process of adjustment.
[3] Debt covers the $2,000,000 transferred from the State literary fund—retained as a safety reserve—and to be repaid as specified in the law.

The State School Insurance Division officials indicate a belief that the "fund" is in a healthy condition, that coverages are increasing, that the rating and charges are adequate, and that the reserves will continue to provide adequate protection and "fund" reserve buildup.

THE NORTH DAKOTA FIRE AND TORNADO FUND INCLUDING STATE SCHOOL BUILDING INSURANCE*

The North Dakota Public School Building Insurance program is a part of the total State insurance program providing insurance protection for State, county, and municipal buildings, including school

* This report is intended to be a factual analysis, neither complimentary nor critical, of factors in the State program that apply to public school property insurance.

buildings as one class. This summary was developed from data obtained from State reports, conferences with State officials, and State laws.

AUTHORIZATION AND HISTORY

The State insurance program, commonly termed the "State Fire and Tornado Fund," was authorized by chapter 159 of the 1919 session act. It has been revised from time to time and is now defined and outlined by State Public Law 26–2400 to 26–2425 with a supplement covering changes made by the 1953 legislature. A few of the pertinent facts outlined in this act and in the supplement are: *The State Fire and Tornado Fund* is under the direction of the Commissioner of Insurance (Frank Albers, Fund Manager, and H. J. Miller, Policy Clerk). *Public* buildings and contents, if owned by the State, and all locally owned *public* buildings in incorporated villages or cities shall be insured under the fund. On public buildings such as rural schools outside incorporated areas, fund coverage is optional with owners. The insurance fund is deposited in the Bank of North Dakota. The owner, or school board, is required to report to the Insurance Commissioner July 1 to August 1 of odd years the depreciated value of each building, etc. Arbitration is provided if not agreed on value, Commissioner shall insure not to exceed 90 percent of approved insurable value. Commissioner may collect a fee of 10 cents per $1,000 of coverage written—minimum $2. All insuring profits are set aside as reserves.

ADMINISTRATION

The Insurance Commissioner levies assessments between July 1 and August 1 as needed to build up reserves. Commissioner to notify boards of premiums due by risks, etc.; if not paid in 60 days he may call on Attorney General to help force payment. If a risk seems too hazardous the Insurance Commissioner may refuse to cover. The Commissioner may assess each risk covered until the reserves reach $4,000,000 as per the 1947 law. As per the 1953 revision the Commissioner determines assessment as the percent of the Bureau rate—with or without coinsurance as per policies written—required to raise the amount needed—but cannot exceed Bureau rate.

Properties which have not been fund covered for 5 years must pay as much as 50 percent of Bureau rate regardless of assessments on other properties. (By decision of the Insurance Commissioner all rates are set at 60 percent of Bureau rates until fund reserves reach the $4,000,000 set in the 1947 law.) Losses are paid up to the face of the policy, adjustment is by the Insurance Commissioner or by qualified adjuster or agency. If catastrophic losses lower fund below $2,000,000 (1953 supplement on 26-2417) the Commissioner may, with the ap-

proval of the Industrial Commission issue anticipation certificates to be issued for 10 [illegible] years, and the interest and principal to be paid by assessment levies on all policies. These may be special assessments but shall not exceed Bureau rates.

By agreement the Insurance Commissioner and the owner may arrange for an independent contractor to repair or replace loss, up to face of policy.

NOTE.—Adjustment cost funds are from regular appropriations but may be charged to loss accounts.

The program was set up as a means of insuring public buildings and contents against fire, tornado, and related losses. It was set up as a nonprofit program. In effect, this is a State operated insurance program on public property carried on by the State Insurance Department. The 1952 fund report indicates that opposition to the program has abated. The fund started without any appropriation and has paid all claims and losses of fire and windstorm and related coverage, including the loss of the capitol.

The history of the fund revolves around five major items on fire and tornado insurance: (a) the reserves required, (b) reinsurance, catastrophe, and excess insurance, (c) returns and assessments, (d) current problems, and (e) investments. The fact that this program is set up on a self-supporting basis, and that the Commissioner is authorized to issue anticipated certificates and is required to levy assessments to redeem such certificates, makes this program in effect a State authorized, State directed cooperative insurance program for public buildings.

Insurance Department Services.—The fund provides a risk inspector who advises owners of public properties on the fire hazards and their elimination. This inspector assists local school boards in reducing fire hazards. The fund also employs an adjuster who aids in adjusting losses. (When he is not available the Western Adjustment Bureau advises on adjustments.) This adjuster also helps establish building evaluations. Experience, a cubage cost unit, and patterns recommended by a national appraisal company seem to be used as bases for evaluation.

The Insurance Department also has a State Fire Marshal to advise on fire risks. He is not connected directly with the fund.

COVERAGE

As indicated, the North Dakota insurance fund provides protection for all State-owned buildings, all municipal buildings in incorporated villages and cities, and also public properties outside incorporated areas if the owners so desire. As of December 1952 the fund had coverage of $122,296,696.40 in force, of which risks with a coverage of

$9,799,800 were reinsured. The State fund had at that time a coverage of $51,616,747 on schools. However, fund officials have not maintained separate premium payment or loss records for schools, hence such cannot be reported here.

Policies—expirations, term.—Standard Form policies (N. Y. 1943) required. All policies are 2-year term at 1¾ times annual rate. Cancellations are pro rata, not short rate. Policies are so written that expirations are August 1 of odd numbered years. Since nearly all regular premium payments are made prior to August 1 of odd numbered years, premium returns for even numbered years are low; hence, loss ratios for the biennium provide a better picture than do the annual data. Coverage on builder's risk may be written for boards of education but not for private contractors.

Some of the larger fund carried risks are:

State Capitol—$3,835,478 (largest risk)

	Total	Single Bldg
University of North Dakota	$6,160,280	$649,050
Agriculture College	5,998,300	481,000
Hospitals	5,599,942	544,892

RATING RISKS

Risk rating is done by the Fire Underwriters Inspection Bureau. This is an independent agency. The State insurance fund pays the rating bureau for this service. Some fund officials indicated that the cost is now $1,000 per year. This rating covers fire, wind, and/or extended coverage, and the usual coinsurance reductions apply when coinsurance policies are written. Most of the coinsurance is 80 percent but up to 90 percent may be written.

The rate patterns have changed. The original 1919 plan seemed to have been to use inspection bureau rates (the same as to be charged by stock companies). As the laws on reserves changed, rates also changed and the State schools have had periods from high rates, or bureau rates, to periods of so-called free insurance; that is, when the reserve had been reduced there might have been a period when a school or a risk, that had been covered for 5 years, might have free coverage until the reserves dropped to a designated new amount. After the 1947 reserve increase, rates on old risks were for a while 25 percent of bureau rates and 50 percent of bureau rates on new coverage. However, during the last 3 or 4 years the rates have been established at about 60 percent of bureau rates. The Commissioner's reports indicate that these rates should build up to the proposed $4 million reserve in 1955. (Data on the 1955 reserve not yet reported.)

REINSURANCE, CATASTROPHE, AND EXCESS INSURANCE

Reinsurance or some other method of spreading the risk is a means often used by protection agencies at least until they have built up

reserves to provide prudential or legal protection. In North Dakota the original act of 1919 indicated that any single fund carried risk of over $100,000 should be reinsured with a reliable company, at least during the first 5 years of the program.

In 1925 the law was again changed, and property was classified, and the fund was required to carry all fireproof risks.

In 1927 the pattern was again changed as follows:

Class I risk—no reinsurance
Class II risk—50 percent of risk, and all over $100,000 to be reinsured
Class III risk—on all risks over $10,000, 75 percent to be reinsured on amounts up to $25,000; over $25,000 fully reinsured

In 1931 the pattern was again changed to provide one new class with some new regulations as shown below:

Class I—risk full retention.
Class II—all over $100,000 to be reinsured
Class III—all over $75,000 to be reinsured
Class IV—new risks over $25,000 to be reinsured

In 1935 the program was again changed to provide six classes of property and these are shown below:

Class I—fund could carry up to $400,000
Class II—fund could carry up to $200,000
Class III—fund could carry up to $50,000
Class IV—fund could carry up to $25,000
Class V—fund could carry up to $25,000[8]
Class VI—fund could carry up to $15,000
Over these amounts to be reinsured

In 1943 the legislation to cancel all reinsurance was passed, leaving the fund to carry all risks, but provision was made for catastrophe insurance in a law that provided for insuring the fund against loss in excess of $100,000 arising from a single catastrophe. It also provided for reinsurance of extraordinary risks such as mills, elevators, etc.

This was later slightly modified in 1945.

In 1947 the catastrophe insurance revisions were repealed, and a new law for reinsuring in excess of over $100,000 on extraordinary risks was substituted. This was in effect in 1952. The only risks outside the fund are mill and elevator and twine and cordage plants for about $10 million.

INCOME, LOSSES, AND COSTS

Since the North Dakota pattern has involved periods of low insurance rates, other periods of free insurance, and certain periods with higher rates, it was not easy to develop data showing loss ratios over a period of years. School building insurance premiums, the losses, and

[8] Note that, as outlined on page 12, the 1963 session act Supplement for Sec. 26-2417 provides for special assessments to prevent Fund depletion through catastrophic losses.

the costs of operation have been handled as part of an overall State insurance program. School fire loss data for individual years can be computed. However, it did not seem feasible to attempt to separate school premium incomes, losses and operating costs from those of other coverages over a period of years.

Cost accounting procedures.—Although the fund is self-supporting, operating expenses for the fund are appropriated biennially by the legislature but are charged to the fund in reporting incomes, expenses, and balances. Operating expenses include fund employee salaries, rating costs, risk inspection, and various other miscellaneous costs. The many changes in the program, periods of free insurance and some accounting procedures make possible more than one interpretation of operating costs, and of the ratio of such costs to gross or net incomes. Here is one illustration: The 1951–52 fund report shows two different total operating cost records for the 1919–52 period—in the trial balance and in the income and disbursement schedule. Each probably is correct and the differences probably result from the inclusion of different items of cost. The operating costs of $577,503.45 for the years 1919–52 shown in the disbursement schedule include catastrophe insurance premiums, and assessment refund accounts total of $66,966.15, which probably are not parts of operating expenses. This sum also includes $70,772.42 loss adjustment expenses, which by law might be charged to loss accounts. If these two amounts were deducted, the net operating costs 1919–52 would be $439,764.88. This would represent about 10.4 percent of the reported $4,226,578.91 net premiums on fund covered risks, and about 7.49 percent of the total net income including net premiums, interest, and other miscellaneous items.

Some current problems.—The problem of determining adequate reserves seems to be ever before the State officials. It seems to be generally understood that either reserves or reinsurance may be essential in a sound program. The fund-carried risk in 1952 was $112,496,896.40,* and the balance on hand in the fund was $2,915,626.32, or a little over 2 percent of the risks carried. In addition one single risk, the State capitol, has a coverage that is about $1 million in excess of the total reserves. As previously noted, reinsurance in 1952 was not authorized on the capitol since reinsurance was limited to extraordinary risks.

Reserves.—The North Dakota laws on required insurance fund reserves have been changed numerous times. In many cases these changes in the reserve laws also brought changes in rate regulations. The following summary shows the required reserves as outlined in the biennial report:

* Note that only about $51 million of this was on schools.

In 1919, it was 10 percent of the coverage.
In 1927, it was 5 percent of the coverage.
In 1931, it was cut to $2 million.
In 1935, it was cut to $1.5 million, with the understanding that risks which had been covered for 5 years by the fund would pay no premiums until the fund had been reduced to the amount stated above, while risks which had been covered less than 5 years would pay at the regular rate until their 5-year period was up, or the fund had been reduced to the stipulated amount, whichever came first.
In 1943, it was $3 million, and returns were to be 50 percent of Bureau rates until this amount was raised.
In 1944, it was $2 million.
In 1947, it was raised to $4 million. The changes which seem to be explanatory have required frequent changes in the rate structure and in order to raise the added amount for the $4 million reserve rates may necessarily be higher for several years.

Incomes, Losses, and Balances.—The fund income from interest has been substantial. One method of lending money was to use it for school district warrants on which interest was paid. The summary of the fund income and expenses from July 1, 1919, to December 31, 1952, is shown in the following tabulation.

Net premiums written 7/1/19 to 12/31/52		$7,227,853.73
Paid—Excess insurance	$1,315,563.06	
Free insurance granted	1,685,711.76	
Total		3,001,274.82
Net adjusted premiums		4,226,578.91
Interest received		1,496,892.76
Bond profit		106,614.58
Policy fees		48,359.74
Other		232.28
Total net income		5,878,698.27
Losses, bond purchase cost, etc	2,376,812.70	
Operating expenses	[1]577,503.45	
Total		[1]2,954,316.15
Assets or balance as of December 31, 1952		2,924,382.12

[1] This includes $70,772.42 loss adjustment expenses which may, by the North Dakota law, be charged to losses, in which case operating costs July 1, 1919, to December 31, 1952, would be only $506,731.03.

[2] These reserves are invested principally in United States bonds, municipal bonds, and investment certificates.

This report is not intended as an audit of the fund, and because of the many changes in the reserve requirements and the rates, only final or period summaries of pertinent data will be provided here. The following comparison of the coverage, premiums collected and reserves for two recent bienniums is illustrative.

A COMPARISON OF 1947–48 AND 1951–52 BIENNIUMS

	1947–48	1951–52
A. Coverage in force:		
1. State	$12, 810, 502. 00	$37, 491, [illegible]. 00
2. County	5, 800, 529. 40	8, 002, 046. 40
3. Cities and villages	8, 907, 554. 00	15, 219, 420. 00
4. Schools	44, 221, 630. 80	51, 616, 747. 00
5. Townships	106, 388. 00	166, 240. 00
	71, 846, 904. 20	112, 496, [illegible]. 40
Risks reinsurance	6, 726, 468. 54	9, 786, 800. 00
Total	78, 573, 372. 74	122, 284, 696. 40
B. Income:		
1. Premiums after refunds	$257, 587. 64	$[illegible], [illegible]. 80
2. Interest	104, 026. 31	129, [illegible]. [illegible]
3. Policy fees	8, 372. 22	12, 507. 71
4. Other		40. 11
Total	[illegible], [illegible]. 17	[illegible], [illegible]. 75
C. Expenses:		
1. Fire & Ext. cover. loss	165, 182. 31	275, 820. 09
2. Adjusting expense	9, 447. 42	14, 818. 78
3. Other loss or expense	208. 10	
4. Current operating expense	26, 198. 57	36, 697. 14
Total	201, 041. 40	327, 330. 96
D. Reserve:		
1. At beginning of biennium	2, 259, 073. 39	2, 429, 750. 33
2. At end of biennium	2, 429, 018. 16	2, 904, [illegible]. 12
Gain or loss	+169, 944. 77	+[illegible], [illegible]. 79

Free insurance.—As used by the fund, the term "free insurance" refers to the amount of premiums involved during those periods when, because of reserve requirement reduction, no premiums were collected on risks which had been fund covered for 5 years. Reports show that the total free insurance amounted to $1,665,711.76. Data were not provided to show the savings effected by using less than Bureau rates.

Loss ratios.—Data are not readily available to show public elementary and secondary school building loss ratios separate from other risks covered. Because of the periods of free insurance and other periods when rate assessments varied often loss ratios are relative, only, to income. Total fund covered losses 1919 to 1952 were about $2,350,000. These were about 55 percent of the net premium collections and about 59.9 percent of the total net income.

These do not include reinsurance premiums and losses. During the years 1928 to 1947 $1,399,405.50 was paid in reinsurance premiums and the losses were $858,592.74, or about 61.4 percent. Of these losses about $600,000 resulted from the 1930 State capitol fire.

THE SOUTH CAROLINA INSURANCE SINKING FUND INCLUDING STATE SCHOOL BUILDING INSURANCE[1]

South Carolina has one of the oldest State school building insurance programs. This program, started in 1900, covers various types of public buildings including State public buildings and contents, all institutions supported in whole, or in part, by the State, county buildings and contents, and all public school buildings and contents. Recorded data, summarized in annual reports, show the coverage and losses by types of risks. In the time available for this study it did not seem feasible to make analyses of the various annual report summaries to determine, after allotting various overhead and administrative costs, the relative loss ratios for schools and other types of protected risks.

ADMINISTRATION

The State insurance program is handled as one unit of the Division[2] of Sinking Funds and Property of the State Budget and Control Board. This State Board is made up of ex officio members including the Governor, State Treasurer, Comptroller General, chairman of the Senate Finance Committee, and the chairman of the House Ways and Means Committee. Mr. Sam B. King, director of the Division of Sinking Funds and Property, seems to operate in an executive capacity and throughout this report the terms *Board* and *Director* may be used interchangeably.

This Division of Sinking Funds and Property has charge of State properties and several funds, one of which is the insurance sinking fund. As will be shown later, the insurance sinking fund seems to have a subunit known as the reinsurance sinking fund. The board, represented by the director, has control of—and latitude to make some changes and adaptations in—the extensive State insurance program. There have been some revisions in the laws concerning the program. The act revision of 1936 required fund coverage for all public buildings and contents of the State or of institutions supported wholly or in part by the State, except the State House which is not so covered. The law specifically mentions all public school buildings. It also authorizes the fund officials to cancel or reduce coverage on buildings no longer used for school purposes or which are so dilapidated that they are no longer good risks, but such cancellations can be made only after the owners have had proper notification.

The local school officials responsible for school property are re-

[1] This report is intended to be a factual analysis, neither complimentary nor critical, of factors in the State program that apply to public school property insurance.

[2] This Division is the successor to the Commissioners of State sinking fund. In the following paragraphs references taken from earlier laws and regulations may use such terms as the *Commissioners*, *Fund*, or the *Insurance Fund Commission* in referring to the newer Division of Sinking Funds and Property.

quired to insure the buildings with the fund. The director sends to the local school officials a written notice of pending policy expiration dates. Such officials are required to make application to the fund for coverage renewals and shall send premiums due, or if premium funds are not then available, to make arrangements for later payments. The fund is authorized to charge 5 percent interest on delayed premium payments. The State and county superintendents' offices provide, on request, information on local school properties owned and the names of the officials in charge. Local officials in charge of property are required to provide the fund commission, on request, information on buildings, types of construction, location, values, etc. Failure to comply with these directions may bring penalties. The amount of insurance to be carried shall be determined by the Commission and the owners; however, the coverage shall not exceed present worth.

COVERAGE

Coverage on public school properties is compulsory. The law does not prescribe the amount of coverage that shall be carried but the Insurance Fund encourages a coverage of at least 75 percent of the insurable value, and on buildings rated "AAA" the fund will accept coverage up to 90 percent of the insurable value. The fund insurance covers State-owned buildings including hospitals and colleges. It also covers district or county-owned school buildings. There are about 12,000 different risks. The total State insurance on these buildings includes fire and extended coverage. The total coverage as of June 30, 1953, was $224,797,850. Of this about $125,700,000 was on elementary and secondary school property. The following tabulation shows the growth of the State insurance fund coverage since 1900 by decades, with the single years 1953 and 1954 added, together with the growth in the fund assets.

Year	Coverage	Assets
1900	$10,000.00	$72.75
1910	1,006,[illegible].61	96,[illegible].11
1920	15,[illegible],[illegible].08	[illegible]1,467.97
1930	40,[illegible],146.20	1,002,[illegible].72
1940	55,[illegible],[illegible].00	1,644,721.47
1950	103,642,376.00	4,[illegible],348.10
1953	224,797,[illegible].36	6,[illegible],[illegible].49
1954	295,490,[illegible].29	6,372,[illegible].67

Coverage for the last two fiscal years has been distributed as follows:

	Year ending June 30, 1953	Year ending June 30, 1954
State property	[illegible]	[illegible],[illegible],175.00
County property	20,184,687.00	21,774,790.00
School property	125,701,[illegible].44	102,210,[illegible].00
Total	224,797,[illegible].36	[illegible]

Building values.—After the State and local school officials report on building values, the director or other insurance fund officials familiar with building costs review these estimates and in case of no agreement on values, an appraisal board may be appointed. The amount of coverage to be carried on such values is determined by the owner and the director but shall not exceed the present worth. Losses are to be appraised by the owner and the director. If they cannot agree on the amount of the loss an appraisal board of three non-interested members may be set up to evaluate the losses. The expenses of the appraisal board are to be shared equally by the owner and the Board.

Policies.—Policies are written on an annual basis with no coinsurance, but at reduced rates. A standard policy form is used and the policy is now adapted to include extended coverage. The Sinking Fund Commission is authorized to cancel or reduce coverage on property no longer used for school purposes, and after due notice, may cancel coverage on buildings when the Commission decides the property is so dilapidated it is no longer an insurable risk.

RATE AND RATING

The insurance sinking fund officials have two field raters who are supposed to rate each risk each year. They prepare descriptions showing name, location, size, and type of buildings. This rating also provides a summary of the fire safety conditions of the risk. These two men have about 12,000 risks to rate; hence, some of the annual checking probably is a rapid recheck of conditions. The Sinking Fund Commission has a working arrangement with the Insurance Rating Bureau and thus may call on the bureau for assistance and advice on rating. The Insurance Commission rating practices as reported seem to be based primarily on the same conditions and factors used by the rating bureau in commercial rating. This would imply that rating on individual risks varies with types of construction, protection, housekeeping practices, etc. Such variations might call for changes in insurance rates yearly or even more often if the rater's recommendations for improvements are not put into effect. The director of the fund indicated that the rates used were about 40 percent lower than commercial rates. The board has full authority to determine rates but the rates should not, in the opinion of the board, be more than would be charged by old-line companies.

Moneys obtained by the Insurance Sinking Fund Commission shall be held as an insurance sinking fund for paying losses. As outlined in the insurance act revision of May 1933, insurance sinking fund reserves were to accumulate until such reserves equal 5 percent of the total insurance in force (and if the investments of the insurance sinking fund seem to be sufficient to maintain the fund at 5 percent of the insurance in force) no premiums should be charged for the next

year, provided that for each new building insured at least five annual premium payments shall be paid regardless of the amount of reserve in the insurance sinking fund. However, during the last 10 years[4] the fund coverage has increased over 300 percent, from about $65 million to about $285 million. While reserves have increased from about $3 million to nearly $7 million during this time, the reserve percentage is less than the 5 percent goal previously set.

REINSURANCE

The State laws permit the State board to reinsure at the most advantageous terms with reliable companies such portions of their insurance liability as is commensurate with safe underwriting. The board may set up its own rules for placing reinsurance. In practice the board generally reinsures 100 percent of the fund carried coverage on large risks. Such reinsurance is now placed with large mutual companies.

The reinsurance sinking fund seems to have been set up as a separate fund from the insurance sinking fund in 1926. Statements and summaries of the various funds in the 1953–54 report show this as a separate fund. However, expenditures for reinsurance are shown as disbursements from the insurance sinking fund. Since reinsurance indemnities are not shown as receipts in the insurance sinking fund it seems probable that such loss indemnities are paid by the reinsuring agency directly to the owner.

The board maintains a separate reinsurance sinking fund which had June 30, 1954:

Cash on hand	$108,307.08
Bonds	1,275,000.00
Accrued interest	7,880.16
	1,391,687.24

This 1953–54 report did not indicate whether the reinsurance sinking fund is a part of the insurance sinking fund. However, it seems to be a separate fund.

INCOMES, LOSSES, AND COSTS

Data were available to show the incomes of various types, the disbursements for losses, and operating costs for the insurance sinking fund over a period of years. Since they were not broken down to show the contributions from and the demands by the various categories of coverage, there was no indication whether school loss ratios were similar to those of other types of fund coverage. Hence basic data shown under incomes, losses, and costs represent the total fund program and do not apply alone to school building coverage.

[4] This date is used since the present director, Mr. King, took charge of this program in 1943.

Fund growth, reserves, control.—As indicated previously, the insurance coverage increased gradually from 1900 to 1920. Since about 1947 the coverage has increased rapidly. This is in keeping with the growth in property values. The sources of income and types of disbursements are shown below.

THE INSURANCE SINKING FUND FROM 1900 TO 6/30/54

Premium income		$11, 927, 262. 94
Interest		2, 253, 580. 25
Rents and miscellaneous income		157, 952. 94
Total income		14, 338, 794. 13
Disbursements—		
Fire and ext. coverage losses	$4, 084, 292. 85	
Reinsurance purchase	2, 929, 845. 68	
Expenses	435, 904. 49	
Miscellaneous	15, 936. 54	
Total disbursements		7, 465, 979. 06
Net gain or profit		6, 872, 815. 07

There was a loss in net assets or reserves in the early part of the 1930 decade, but since 1948 or 1949 there has been a substantial increase in the reserve assets.

As was indicated, the board is directed to hold reserves until they equal 5 percent of the fund coverage in force, and that when such reserves are available, premium collections shall be only such as required to maintain such balance. Reserves have not reached this percentage.

Year	Reserves—percent of coverage	Year—Continued	Reserves—percent of coverage
1930	2. 4	1950	4. 1
1940	2. 4	1953	2. 7
1940	2. 9	1954	2. 4

The 1954 percentage indicates that coverage increases have been more rapid than the reserve increase.

Assets of the Insurance Sinking Fund, June 30, 1954.—The $6,872,815.07 insurance sinking fund assets as of June 30, 1954, include $1,701,000 United States bonds, loans to various State units including the highway department $2,464,835.21, loans to school districts and other units of about $121,250. The assets listings also show several pieces of real estate including certain State office buildings. The annual statements of the insurance sinking fund income for 1953–54 show payment on loans as an income, yet disbursements show renovation on these buildings; hence, it is not clear whether the fund owns or has loans on these buildings. The $6,872,815.07 reserves were net as certain loss reserves had already been deducted.

Operating costs, losses.—Expenses—Operating expenses are taken from income, but by legislative authorization. The 1953–54 operat-

ing expenses of $43,438.90 were about 4.8 percent of the premium income. Since 1900 the $435,904 expenses have been about 3 percent of the total income. Currently and through the 54 years the operating expenses have been about one-fifth of the fund income from interest received.

Losses—As will be explained later, insurance sinking fund reports show a record of the amount of income spent for reinsurance but do not seem to report income from reinsurance loss indemnities, indicating that some or all of these may be paid directly to the owners. On this assumption reinsurance cost payments have been deducted from the premium income, and the total income 1900 to 1953 in order to estimate the insurance sinking fund loss ratios.

INCOME AND LOSS RATIOS:[1] 1900 TO JUNE 30, 1953[2]

Item	[illegible] reinsurance costs	Losses paid	Percent of loss ratio
1	2	3	4
Premiums only	[illegible]	[illegible]	[illegible]
Total net income	[illegible]	[illegible]	[illegible]

[1] Nonreinsured coverage.
[2] These data were compiled before the June 30, 1954 fund report was printed. When the 1 year is added the totals increase but the percentages show slight changes.

Data were not available to show whether the current premium rates of about 60 percent of bureau or commercial rates have been maintained throughout the history of the fund and hence no effort was made to compute what the loss ratios might have been if commercial rates had been charged.

The insurance sinking fund profit and loss statements for 2 years, July 1, 1952 to June 30, 1954, show:

Premium income		$1,937,878.82
Interest		322,608.56
Miscellaneous		12,422.17
Total income		2,272,908.55
Disbursements—		
Reinsurance purchase	$302,063.92	
Losses paid	395,030.36	
Expenses	74,692.96	
Miscellaneous[1]	70,420.90	
Total disbursements		[2]849,130.13
Net gain		1,423,778.42

[1] Includes $[illegible].14 [illegible] premium deposit [illegible].
[2] Note that the reinsurance costs were included but reinsurance losses of about $[illegible] for the 2 years were not included in the insurance sinking fund report, as they are carried in the reinsurance sinking fund report.

The following tabulation shows the total losses by classes of risks (including reinsured risks) for the 2-year period July 1, 1952 to June 30, 1954:

LOSSES

Item	Fire	Extended coverage	Total
1	2	3	4
State	[illegible]	[illegible]	[illegible]
County	[illegible]	[illegible]	[illegible]
School	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]

Similar data for the life of the fund were not available.

Sprinkler loans.—The board is authorized to make loans to school districts (as well as certain other insurers) for sprinkler installation if it deems the premium savings ample to the board loan. The premiums are not to be reduced until the loan is paid. In case of a loss on an obligated sprinklered risk, the board will deduct the balance of the loan due before paying the loss indemnity.

SCHOOL BUS INSURANCE [illegible]

A revision of Act. No. 379 of 1951 was amended as of June 1952 to provide State insurance program for casualty, liability, and property damage on State-owned school buses. This act set up a plan for a $2,000 death benefit or up to $3,000 for surgery, medicine, etc., for lawful occupants of each school bus. It also set up a provision of $5,000 per person and $25,000 per accident, liability for persons not riding the bus when injury was the result of negligence, and a property damage for the same; this coverage of pupils extended from the time they got on the bus until the time they got off. This authority was placed under the State Educational Finance Commission.

THE WISCONSIN STATE INSURANCE FUND INCLUDING STATE SCHOOL BUILDING INSURANCE [illegible]

The Wisconsin school insurance program is a part of an overall State insurance program. This program is often referred to locally as the State insurance fund and is so reported in the annual report of the State Commissioner of Insurance. The State insurance fund program covers various types of State buildings, municipal buildings, county buildings, and schools. Fund coverage is compulsory on State-owned buildings; however, fund coverage is not compulsory on county or

[illegible] The State Chamber has insurance is not a part of the State property insurance program. It is reported here as a record of the State's new program in this area.

[illegible] This report is intended to be a factual analysis, neither complimentary nor critical, of factors in the State program that apply to public school property insurance.

municipal school buildings. It is permitted and is optional with the owners. The State Insurance Department officials accept coverage on local school buildings at the request of, or by agreement with, the local board but the insurance fund officials make it a point not to promote fund coverage on such property.

HISTORY

The Wisconsin State insurance fund was authorized in 1908. At that time protection was provided only for State-owned property. However, in 1911 protection was offered for county properties, and in 1913 protection was offered for other municipal properties including schools.

ADMINISTRATION

The program is administered by the State Insurance Department under the direct supervision of the commissioner and a manager. The total program is normally referred to as the "State insurance fund," sometimes referred to as the fund. The commissioner is authorized to employ a staff to carry on the work. The Wisconsin program has some of the earmarks of a State-operated cooperative program supported by insuring members. However, section 210.03 of the 1951 Wisconsin Statutes provides that when the insurance commissioner approves a loss he notifies the State budget officer and treasurer who shall issue indemnity payment. If there is not enough money in the State insurance fund the director of budgets and accounts shall draw warrants on the State general fund which the State treasurer shall honor. Then the State insurance commissioner shall from time to time repay this money to the general fund from surpluses in the State insurance fund. State officials report that the State did bail out the insurance fund in 1904, soon after the fund was started, for a $194,000 obligation on the loss of the State capitol building, but that the State was reimbursed from later earnings of the fund.

The commissioner is authorized to determine the losses or damages incurred and to arrange for paying indemnities. If the owners and the commissioner cannot agree on losses or damages, provisions are made for arbitration through an impartial board.

The commissioner notifies insurers of premiums due. If not paid within 60 days these shall become a special charge against the districts, and together with accrued interest shall be included in the next certification of taxes.

COVERAGE

The State fund provides fire and lightning, or fire and extended coverage, wind and hail, and builder's risk insurance on buildings. It may provide floater and all-risk insurance on movable property; and also motor vehicle fire, theft, wind or comprehensive coverage.

It does not provide liability or casualty insurance protection. Compulsory fund coverage on State-owned property shall be up to 90 percent of the cash value and the person in charge is obligated to notify the commissioner of such values.

Fund coverage on non-State property including such properties as county buildings, schools, and various municipal buildings, is permissible and such coverage as is outlined above is optional with the owners. However, the following provisions apply: The board in control of property may pass a resolution to insure their school buildings (or other buildings for municipal or county units) with the fund. If this is done, all coverage may be transferred immediately, or, by agreement with the commissioner, outstanding commercial policies may be continued to expiration. However, no new nonfund coverage would be permissible without special permission of the commissioner. The local board may abandon fund coverage by passing a resolution to this effect. Types of school coverage, fire and/or tornado, or extended coverage is optional with the owners. Such coverage is handled the same as State coverage after the resolution is passed. Such non-State coverage can be written for 1-, 2-, 3-, or 5-year terms.

Data were not available to show total coverage written during past decades or to show the amount of coverage by classes at the present time. The following tabulation shows the coverage written for the calender year 1952.

TOTAL FUND INSURANCE IN FORCE: DECEMBER 31, 1952

Item	State	Non-State	Total
1	2	3	4
Fire		[illegible]	[illegible]
Fire and extended coverage	[illegible]	[illegible]	[illegible]
Wind and hail	[illegible]	[illegible]	[illegible]
Sprinkler leakage	[illegible]		[illegible]
Motor vehicles	[illegible]	[illegible]	[illegible]
Inland marine	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]

One tabulation prepared by the Insurance Department seemed to indicate that in 1952 the public elementary and secondary school coverage was about 57.5 percent of all of the non-State coverage. This would indicate that the total fund insured school building coverage for that year should have been about $91 million.

For each, the required fund coverage on State property and the optional fund coverage on non-State property such as local elementary and secondary public schools, the owners or those in charge are obligated to set or to assist in establishing property insurable values. On State property the services of the chief State engineer may be made

available. On non-State property various evaluative measures such as reasonable local or commercial appraisals may be acceptable. The fund officials will check on all valuations submitted.

Data were not available to show what percentage of all public elementary and secondary school insurance is State fund coverage. Fund coverage is available for schools, but the manager, Myron E. Pugh, indicated that fund officials do not carry on promotional campaigns for such coverage.

Policies—Policies on State-owned property are for 2 years (agreeing with State appropriation limits) and expire as of July 1. These policies on State buildings are for 90 percent fire and extended coverage.

On non-State property, including schools, policies may be for various terms and common expiration dates are not required. Specific schedule policies are generally written and these do group the expiration dates for each insurer. As indicated, the responsibility for fund coverage on school buildings rests with the local board of education. After the board has agreed to insure with the fund, all coverage shall be so written until such time as the local school board shall pass a resolution to drop the State fund coverage.

RATING

The State fund is authorized to subscribe to the established independent rating and actuarial bureaus and thus to obtain technical services from them. Individual risk rates are made by the Fire Insurance Rating Bureau. These are the same as used for commercial policy coverage. The State fund then discounts the premiums 50 percent, or in other words, fund premium collections are 50 percent of commercial premiums. Coinsurance rates are applied if the local board wishes to write coinsurance contracts.

REINSURANCE

The Wisconsin statutes, 210.02, authorize the Commissioner to purchase reinsurance protection—in excess of $100,000 per risk—but only where the reinsurance costs do not exceed the amount collected by the State fund. However, State fund premium rates are 50 percent below bureau or published commercial rates. It seems that little, if any, reinsurance is now written. If reinsurance were written, loss indemnities would be paid, by companies writing the reinsurance, to the Commissioner who would make loss settlements with the owners.

INCOME, TAXES, AND COSTS

Composite data covering all of the years and showing trends of Fund growth and reserves or showing what percent public school coverage was of the total throughout the various years were not readily available. The same applies to the relationships of losses and loss ratios for school properties to other properties covered by the fund.

Hence the following data on incomes, losses, and loss ratios will be applicable for the period designated for the total fund program but will not necessarily indicate the ratios or increases that represent the school building part of the total program. This report will include some specific data on school building premium collections, losses, and loss ratios for a 5-year period, 1948–52 inclusive.

Income and Losses.—Data on Fund incomes and losses for earlier years were not readily available. During the year 1952 the fund income was:

UNDERWRITING INCOME FOR 1952

Premiums earned	State property	Non-State property	Total
1	2	3	4
Fire and lightning	[illegible]	[illegible]	[illegible]
Extended coverage	[illegible]	[illegible]	[illegible]
Tornado, wind, hail	[illegible]	[illegible]	[illegible]
Other	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]

FUND INVESTMENT INCOME FOR 1952

Interest on stocks, loans, etc	$195,932.91	
Interest on State office building	30,622.28	
Total	226,555.19	
Total income		$627,005.86

LOSSES AND EXPENSES

1	State coverage	Non-State coverage	Total
1	2	3	4
Losses	[illegible]	[illegible]	[illegible]
Adjustment expenses			[illegible]
Operating expenses			[illegible]
Total losses and expenses			[illegible]

Fund reserves.—From data available it did not seem feasible to show the loss trends, the growth of the fund, or the investment incomes during past years. The 1952 report of the Insurance Commissioner shows a State insurance fund surplus of $7,880,047.56.

The surplus funds seem to be invested in stocks, bonds, mortgages, and in real estate. One State office building is listed in assets at $980,844.96. This probably represents a loan rather than fund ownership since the income table from this report shows interest earned on State office building at $30,622.28.

While 1 year of expenses is not indicative of fund stability, the gain in fund assets December 31, 1951 to December 31, 1952, was $550,419.05.

Operating costs for the year were about 8 percent of the premium income and were only about one-seventh of the investment income. The fund data were not separated to provide information on the school rates, the fund administrative costs that might be charged to schools, or to provide a history of school loss ratios during the years from 1913 to 1953.

Data compiled by the rating division of the Wisconsin State Insurance Department showed 5 years of experience, 1948–52 inclusive, on premiums paid, losses, and loss ratios for school building insurance with stock company, mutual, and State fund coverages.

The premiums and losses shown in the following tabulation are not wholly comparable. Those for stock and mutual companies cover public and private educational buildings at all school levels. The State fund covers only public schools including State-owned higher education buildings.

The fund loss ratios are higher than for stock or mutual companies for this 5-year period. However, the State insurance fund premium collections are at 50 percent of the rates of stock and a majority of the mutual companies. During the 50-year period the fund has accumulated a surplus of about $7,800,000.

During the 5-year period the premium collections for school building insurance were $401,640. Previous data showed that for 1 year the operating costs were about 8 percent of the premiums collected. If this same ratio applied for that part of the fund coverage relating to school buildings, the operating costs for the 5 years would have been about $32,000. Hence the total losses paid and operating costs would have been about $171,000. This would mean that the fund gain on school building insurance for the 5-year period would be about 55 percent of the premiums collected. It should be understood that these data are limited to the 5-year period for which specific premium payment and loss ratio data were available at the time these data were compiled.

SUMMARY AND COMMENTS

The titles used for these five State summaries are not necessarily the ones used in the respective States. Only one program, that of North Carolina, is strictly a school building insurance program. In the other four States the school insurance program is a part of a wider State-operated insurance program. In the North Carolina and Wisconsin programs school coverage is optional and in Alabama it is optional for certain city schools. North Dakota schools outside of incorporated areas are State fund insured if the local owners so wish. In South Carolina State coverage of schools is complete.

In effect, these are essentially State operated programs supported by premiums paid by local units on the properties insured. In most

WISCONSIN EDUCATIONAL BUILDING INSURANCE LOSS RATIOS: 1948–52

Type of building and risk	Stock Companies			Mutuals			State Fund			Total		
	Premiums	Loss	Ratio	Premiums	Loss	Ratio	Premiums	Loss	Ratio	Premiums	Loss	Ratio
1	2	3	4	5	6	7	8	9	10	11	12	13
Fire-resistive protected	$258,411	$44,667	12.5	$80,080	$6,078	12.1	$110,465	$7,948	7.1	$516,907	$58,573	11.3
Fire-resistive unprotected	21,190	1,422	6.7	4,572	54	1.1	3,888	1,011	26.0	29,652	2,487	8.3
Brick protected	811,085	271,465	33.5	212,072	45,677	21.5	155,097	97,532	62.5	1,179,244	414,674	35.1
Brick unprotected	128,280	37,282	28.8	50,063	7,179	14.3	26,719	30,338	112.5	206,061	74,769	36.3
Frame protected	131,294	42,751	32.6	51,880	2,782	5.1	57,880	1,331	2.3	242,089	46,845	19.7
Frame unprotected	108,887	48,386	45.3	32,101	7,994	24.1	9,540	606	6.3	148,488	56,988	38.1
Subtotals	1,555,089	445,928	28.6	402,407	69,745	17.3	364,580	138,665	38.0	2,322,995	654,338	28.1
Frame unprotected (rural, village)	41,913	6,628	15.8	29,913	453	1.5	24,022	278	1.1	95,848	7,304	7.6
Brick (country)	17,085	23	.1	16,243	1,754	10.7	13,039	128	.9	46,357	1,905	4.1
Subtotals	58,998	6,655	11.2	46,156	2,207	4.7	37,061	406	1.0	142,205	9,269	6.5
Grand totals	1,614,087	452,579	28.0	448,563	71,952	16.0	401,640	139,071	34.6	2,464,290	663,382	26.8

cases the programs do not involve State credit. Operating expense funds are generally appropriated, by legislative action, from premium payment incomes.

Most of the States have or have had some reinsurance authorization. This authorization is used in different ways in the various States. Fund reserves are essential parts of each State operated program but the amounts and the manner of investing are different for each State. Some States use State or regional rating bureau rating; other States have staff members do their own rating. In most cases there seems to be a tendency to base rates on a percentage of bureau rates. If rates are reduced, a school may not always share in the reduction until it has been fund-covered for a period of years.

Section IV

A FORWARD LOOK IN SCHOOL INSURANCE

AS PREVIOUSLY INDICATED, this study is historical and analytical and is limited primarily to reports of State experiences or relationships in school property insurance, with section II limited to fire insurance experiences. The data given in this one area of school insurance provide some indication of the scope and complexity of school insurance programs. Few school administrators have had opportunity or have taken the time to make extensive studies in school insurance. The total school insurance programs are increasing in scope and costs, and the available studies are limited in coverage. There is now need for a series of studies on school insurance in various areas, some of which are school insurance administration, pupil casualty-accident vs. liability insurance, workmen's compensation, and the relationship of protective and preventive programs to rate and cost reduction.

School insurance is an important factor in school administration and the school officials in charge need to understand the essential elements of an adequate, safe, economical school insurance program. In numerous cases insurance surveys and program reorganization have aided in simplifying the local programs, in improving coverage balance, and in effecting immediate or ultimate economies. Many school systems find it desirable to recheck their total insurance programs frequently. State departments of education might render a valuable service to the schools of the States through the services of a trained consultant on insurance problems. A consultant of this type might aid in developing programs of fire protection and of prevention in other areas which would materially improve the school insurance programs, and perhaps reduce costs, for the schools in the State.