STATISTICS OF THE NATIONAL BOARD

OF FIRE UNDERWRITERS

BY

J. H. FINNEGAN

At the time the National Board of Fire Underwriters began collecting classified statistics, some 14 of the 48 States required reports directly from individual companies. There was no uniformity among these reports as some were required monthly, some annually and there was no standard report form. Reports on losses were always required and most States were interested in losses paid. But one called for losses incurred. Amounts at risk were most often reported but premiums written were sometimes necessary.

The National Board became interested in the reporting of statistics when the Superintendent of Insurance of New York asked in a circular issued May 20, 1912 for the classified record of companies' experience for New York State for the period 1900 to 1911. The request received immediate consideration and the matter was given further attention by the Insurance Commissioners at their 1913 convention. The National Board appointed an Actuarial Committee to consider the New York request and broadened the inquiry to include the question of a standard form for the reporting of fire losses as well as a standard classification of occupancies.

To handle the collection of these figures as well as to perform other functions, the Actuarial Bureau of the National Board was established in 1915. The gathering of statistics began immediately and one of the first lessons learned was that the original classification of some 584 occupancy classes was so refined that it produced figures of limited value. A revision of the classification reducing the number of divisions to 154 went into effect January 1, 1918. A further revision became effective January 1, 1925 when the number of classes became 156. Still another change was made January 1, 1928 when the number of classes was reduced to 28 and these were reduced to 26 classes in 1932.

The National Board began its new operation by providing classified fire data to 14 States. By 1920 the number had grown to 19 and for all 19 the compilations were for duly elected member and subscriber companies only. New York State was the first to name the National Board statistical agent for members and non-members as well. This occurred in 1922.

During the period 1915 to 1918 loss compilations prepared by the Actuarial Bureau were based on reports of individual fire and lightning losses supplied by member companies. These were and still are submitted on a standard form made out by the adjuster. Originally the forms were completed for payments of all sizes but those for small sized claims were eliminated until now they are, with some exceptions, supplied only when the payment is \$100 or more. A 3 x 5 photostat of the top half of each completed form is supplied to the various state fire marshals who use the information in their fire prevention activities. The submission of these small photostats fulfills for member and subscriber companies the requirements by state fire marshals that details on individual fire loss payments be reported.

The adjuster's loss report also contains the cause of each fire and after having been coded, this, as well as certain other information, is transferred to punched cards. These are tabulated once each year and provide data on the relative importance of different causes. Certain state fire marshals require these data and a nationwide composite is published annually in the National Board Proceedings as part of the report of the Committee on Statistics and Origin of Fires.

From 1915 to 1953 the causes of fires were grouped according to a division which lost some of its usefulness with the passage of time and the introduction of new processes and hazards. The old grouping was revised in 1953 and a dual classification substituted instead. Each loss report now receives one code for the kind of spark or cause of ignition and a second code for the substance on which the spark fell or material ignited. No figures according to the new breakdown have as yet been published, but it is believed that much useful information not previously on hand will be available before long.

The cause of loss data published by the National Board are prepared under the direction of a Committee now called the Committee on Statistics and Origin of Losses, and as the annual report of this Committee also contains two other statistical series, they will be described at this point.

The first of the two series shows the total estimated fire losses by years since 1875. These annual totals are now based on insurance losses of member companies but the total of amounts reported are expanded to allow for unreported losses, for losses by non-member carriers and for losses suffered by uninsured property owners. In 1930 member companies began the submission of reports of monthly losses incurred. These are totaled each month and after similar expansion to allow for uninsured and unreported losses, etc., appear in the press. At the close of each year, the adjusted monthly losses are added with the total shown as part of the series of annual losses starting in 1875.

The annual reports of the Committee on Statistics and Origin of Losses for years since 1948 also contain figures on the number of alarms for fires. These are based on reports submitted by fire chiefs of United States cities, 2500 and over. After the figures reported by the various cities are combined, the totals are adjusted on the basis of population to allow for alarms in cities from which no reports are received. The alarm totals are classified first by size of city and then as among fires in buildings, outdoor equipment and grass or brush. It is important to note that the fire alarm series relates to insured and uninsured property alike and no adjustment such as is necessary for dollar loss totals need be made in this instance. As indicated above the reports of individual losses have always been satisfactory as far as fulfilling the needs of the state fire marshals were concerned and also for supplying cause of loss information. Difficulties were encountered, however, when the individual loss payments for any given State were added and an attempt made to reconcile the totals with annual statement entries. The two seldom, if ever, agreed and to produce loss figures which could be reconciled with statement totals companies were required, starting with 1939, to submit, in addition to reports on individual losses, a summary tabulation of losses paid by occupancy class with a written reconciliation to annual statement totals.

Today individual loss reports are still received and copies are supplied to the fire marshals of 19 States. Summary tabulations of both premiums and losses by occupancy class are also submitted by companies according to the general plan established in 1939 and reconciliations to annual statement totals have been made time and again with little difficulty.

It is interesting to note that the original plan for the reporting of statistics called for a classification of losses and amounts at risk. It did not ask for premiums written. The laws of certain States required premiums written, however, and when finally put into operation, the National Board plan called for premiums written and amounts at risk as well as losses paid. As time went on the value of data on amounts at risk came to be questioned more and more. Companies found, for example, that the frequency with which endorsements were made to fire policies made it practically impossible to maintain accurate figures on amounts at risk and that the custom of writing term business created additional complications. The figures fell into disuse and were gradually dropped until the last State rescinded its requirement for them in 1942.

STANDARD CLASSIFICATION OF OCCUPANCY HAZARDS

As mentioned above the original classification contained 584 occupancy classes which were subsequently reduced to 154, then to 156, to 28 and finally to 26 in 1932. The 26-class breakdown was satisfactory at first but as time passed, it became apparent that many of the 26 classes were too broad and that a finer division of occupancies would be more valuable. The decision to develop a new classification was made almost simultaneously by both industry and the National Association of Insurance Commissioners and a two year period of study began. The industry revision expanded the 26-class breakdown to 100 fire classes which were subdivided according to one of six construction-protection divisions. This went into effect in January of 1946.

A revised version containing 115 classes approved by the National Association of Insurance Commissioners became effective January 1, 1947 and is still in use. These 115 classes are shown in an appendix. Being one of occupancy and without reference to ownership, the new Standard Classification of Occupancy Hazards, as it is called, was not in all instances a simple subdivision of the 26-class breakdown which it replaced. There was some overlapping and to make it possible to continue the production of the old 26-class experience, 20 of the 115 classes were temporarily subdivided. In 1952 when five years of the 115 class data had accumulated the old 26-class breakdown was no longer of any use and a new edition of the Standard Classification, eliminating all reference to temporary codes, was published. Except for the dropping of the temporary codes, expansion of the index and rearrangement of descriptive material, the new edition is identical with the one it replaced.

As indicated above the statistics first collected by the National Board were for fire only. Premiums and losses for extended coverage and allied lines for years before 1947 were collected by the Allied Lines Association. With the adoption of the Standard Classification which specified classifications for such business, the National Board continued its compilation of fire experience and in addition began the collection of premiums and losses for extended coverage, wind and hail (except on growing crops), flood, rain, water damage, sprinkler leakage, explosion, earthquake and aircraft and vehicle property damage.

The following figures from Insurance by States show the direct premiums written for most of these coverages during the year 1954. The figures represent the direct writings of stock companies in the Continental United States:

Fire	\$1,282,993,000
Extended Coverage	422,585,000
Tornado, Wind and Hail except Grow-	
ing Crops	7,820,000
Sprinkler Leakage and Water Damage	9,061,000
Explosion	725,000
Earthquake	5,771,000

Following adoption by the National Association of Insurance Commissioners the Standard Classification was adopted individually by Alaska, Hawaii and Puerto Rico and all but a few States. The exceptions are West Virginia, which has adopted the extended coverage endorsement and the allied lines portions only; the District of Columbia which adopted neither the fire nor extended coverage portions but has adopted the section on allied lines; Wisconsin, which follows the Standard Classification but has added a number of additional special classes of its own; and Texas which uses a special set of subdivisions which cannot be converted. The Texas Insurance Checking Office places its own as well as Standard Classification codes on all dailies. This is necessary to fulfill Texas requirements and to permit member and subscriber companies to report their Texas business to the National Board on the same basis as used for other States.

The preceding paragraph mentions coding of Texas dailies and at this point it might be explained that with the adoption of the Standard Classification the practice began of sending all dailies to a state stamping office for coding. The procedure was established to effect uniformity and with certain not too important exceptions all dailies are coded by a state bureau before companies receive them. With the code on each daily at the time of receipt, entry of the proper code on company records presents no problem. When a loss occurs and the daily examined, the same code is copied for use on all loss records and on reports submitted to the National Board.

STATISTICAL AGENT

The adoption of the Standard Classification in 1947 brought a substantial expansion in the statistical activities of the National Board, but the increased number of classes and the collection of figures for other than fire lines were not entirely responsible. The status of the National Board as statistical agent for subscriber and non-subscriber companies expanded as well.

Duly elected National Board members and Actuarial Bureau subscriber companies report all of their fire and allied lines business in all States, the District of Columbia, Alaska, Hawaii and Puerto Rico, and these figures comprise a large proportion of the premium volume reported to the National Board. Reports are also received from nonsubscriber stock companies under designations which the National Board has accepted as statistical agent for all but a few States. As indicated earlier the National Board has been supplying fire experience to certain States for a number of years, but the formal designations as statistical agent for subscriber as well as non-subscriber companies increased markedly after the adoption of the Standard Classification in 1947. At present the National Board is statistical agent for the insurance departments of Alaska, Hawaii, Puerto Rico and of all States except Louisiana, Montana, California and Texas. In Colorado the designation applies to subscriber companies alone but in the other States the designations cover all stock companies which may report on either an optional or a mandatory basis. In West Virginia the designation covers extended coverage and allied lines but not fire. In the District of Columbia the designation is for allied lines alone. 15.25

STATISTICAL PLAN FOR EARNED PREMIUMS AND INCURRED LOSSES

After the adoption of the Standard Classification and the appointment of the National Board as statistical agent by various States, the desirability of classified experience reports on the earned and incurred basis in addition to written and paid experience was realized. The tremendous volume of detail cards used in the ordinary course of business in a fire company office as well as other practical considerations ruled out the possibility that companies might compute earned premiums by State, Major Peril and occupancy class and supply such figures directly to the Actuarial Bureau. Instead the Statistical Plan for Earned Premiums and Incurred Losses was devised and adopted effective January 1, 1949 for fire and extended coverage but not for other allied lines. At the outset only duly elected subscribers were required to report on the new basis but since 1949 seven States and Puerto Rico have made it mandatory for all stock companies.

Under this Statistical Plan for Earned Premiums and Incurred Losses, the previous pattern of reporting was continued with certain additional requirements which in no way affected the continuation of the written-paid statistical series begun in 1947.

The first requirement of the new Statistical Plan was that premiums formerly reported by State, Major Peril and Subclass would, starting with January 1, 1949, be reported with an additional breakdown by term. Percentage of manual was also required as well as reports of losses outstanding as of December 31 of each year.

At this time it should be noted that companies were asked to start the reporting by term with premiums written during 1949 and there was no attempt made to apply the Statistical Plan for Earned Premiums to any policies written prior to 1949. Because of this decision companies were asked to split their reports starting with January 1, 1949 to show one complete classification of premiums written before January 1, 1949 and losses paid thereon with another complete classification for business subsequent to January 1, 1949 with subdivision of premiums by term, percentage of manual and with losses outstanding also reported. For written paid tabulations the two parts of each company's report are added. For the earned-incurred reports only those amounts subsequent to January 1, 1949 are used. The terms are reported in full years which, for purposes of convenience, are regarded as being either one, three or five.

The computation of premiums earned for any given State, Major Peril and Subcode begins with the term breakdown reported by all companies combined for the year 1949. The following is a partial illustration of the procedure followed although the work is actually done on punched card machines.

ILLUSTRATION OF HOW EARNED PREMIUMS FOR ANY GIVEN MAJOR PERIL AND SUBCODE IN ANY GIVEN STATE ARE COMPUTED

Fractions and Amounts Earned in Years Shown

Premiums Written	1949	1950	1951	1952	1953	1954	1955	1956
1949—1 Yr. \$50 3 Yr. \$60 5 Yr. \$70	½ or 25 ½ or 10 ½ or 7	1√2 or 25 1√3 or 20 1√5 or 14	½ or 20 ½ or 14	⅓ or 10 ⅓ or 14	⅓ or 14	1/10 or 7		
1951—1 Yr. \$50 3 Yr. \$60 5 Yr. \$70	\$42	½ or 30	14 or 30					
1949 Earnings on 1949 Writings		1⁄2 or 30 1⁄6 or 12 1⁄10 or 8	½ or 30 ⅓ or 24 ⅓ or 16	⅓ or 24 ⅓ or 16	1% or 12 1% or 16	⅓ or 16	½10 or 8	
1950—1 Yr. \$60 3 Yr. \$72 5 Yr. \$80		\$109	14 or 25	14 on 95				
1950 Earnings on 1949 and 1950 Writings			½ or 25 ½ or 10 ¼ ₁₀ or 7	½ or 25 ½ or 20 ½ or 14	場 or 20 光 or 14	⅓ or 10 ⅓ or 14	⅓ or 14	⅓ ₁₀ or 7
1951 Earnings on 1949-1950 and 1951 Writings			\$146					

The above illustration is not a complete one but it does show how premiums earned for any given year are obtained. It will be noted that all of the 1949 writings will be earned by the end of 1954 and will not be included in premiums earned for any year after 1954.

For converting the written premiums by term to earned premiums, it might have been possible to use the statutory fractions such as used in the previous example but for the purpose of recognizing the effect of cancellations a set of factors slightly different from the statutory fractions are computed each year and used instead. The factors are obtained from an annual report supplied by companies entitled "Summary Direct Premiums Written and Contributions to In Force," which for the year 1954 appears as follows:

Study Explanatory Notes on Reverse Side Before Preparing This Report IN FORCE

For the Year Ended December 81, 1954

Company or Group or Reporting Association

EFFECTIVE TERMS YEARS			r Perils 10 & 11	Ext. Cov. Major Perils 20 to 28		
I LAKS	2 years 1 yr. or less	Direct Premiums Written 1954	Direct Contributions To In Force 1954*	Direct Premiums Written 1954	Direct Contributions To In Force 1954*	
		\$	\$	\$	\$	
1954					•	
1954	3 years					
1954	4 years					
1954	5 yrs. or over		XXXXX			
1954	1 yr. or less		XXXXX		X X X X X	
1953 1953	2 years					
1953	3 years 4 years					
1953	5 yrs. or over					
1953	1 yr. or less		XXXXX		XXXXX	
1952	2 years		XXXXX		XXXXXX	
1952	3 years					
1952	4 years					
1952	5 yrs, or over					
1952	1 yr. or less		XXXXX		XXXXX	
1951	2 years		XXXXX		XXXXX	
1951	3 years		XXXXX	ļ,	XXXXX	
1951	4 years		:			
1951	5 yrs. or over				V 37 37 37 37 37	
1950	1 yr. or less		XXXXX		XXXXX	
1950 1950	2 years		XXXXX		XXXXXX	
1950	3 years		XXXXX		XXXXX XXXXX	
1950	4 years 5 yrs. or over		XXXXX		ллдлд	
All prior	o yrs. or over					
eff. years	all terms		TE TE TE TE TE		XXXXX	
Advance Pren			XXXXX	1		
All years	all terms		XXXXX		XXXXX	
Reporting Ass			ллллл			
All years	all terms		XXXXX		XXXXX	
Canadian & O						
Foreign Prem				[[
All years	all terms		XXXXX		XXXXX	
		\$	\$	2	\$	
TOTALS		Toagreewith		Toagreewith	VVVV *	
		Page 6, Line 1,	XXXXX	Page 6, Line 2,	XXXXX	
		Column 1		,	Column 1	
	<u> </u>			, 		

SIGNED.

TITLE.

EXPLANATORY NOTES

- *"Direct Contributions to In Force" represents full term direct premiums less original premiums cancelled, arising from current year's transactions. Amounts entered as "Direct Contributions to In Force" and corresponding amounts in the "Direct Premiums Written" columns should exclude reporting associations, Canadian and other foreign business. Reporting associations should report in the same manner as a company, with Canadian and other foreign business excluded.
- **Required only for purpose of balancing with Annual Statement, Page 6. See Standard Classification (Second Edition — Revised October, 1952) page 4, for list of reporting associations.

Only one statement covering the entire business of a company or group or of an association is required. Statements for individual States should not be furnished. Indicate all credits plainly.

After a statement for the contributions of all companies reporting for earned premiums has been received and a summary of all reports tabulated, the unearned premiums during each year and for each term are computed by applying the complements of the statutory fractions to the various Contributions to In Force totals.

Separate totals for the 1, 3 and 5 year unearned premiums for each effective year are next obtained and each total is subtracted from its corresponding figure for premiums written to obtain 1, 3 and 5 year amounts for premiums earned. These are next divided by the proper premiums written total and a separate ratio of earned to written is produced for 1, 3 and 5 year business. In the Actuarial Bureau these ratios are called factors and as already mentioned they differ somewhat from the statutory fractions and vary from year to year.

To obtain earned premiums the premiums written total for any given class is tabulated by term and grouped as either 1, 3 or 5. The 1-year premiums for the given class is multiplied by the 1-year factor, the 3-year premiums by the 3-year factor and the 5-year premiums by the 5-year factor.

The three figures for premiums earned for the given class are then added and premiums earned for that class results.

In the fire field the volume of business written at other than manual rates is only a small proportion of the total and so far the percentages of manual required by the Statistical Plan for Earned Premiums and Incurred Losses have been used only to exclude deviated business from the National Board's annual earned-incurred tabulations.

Amounts reported for losses outstanding as of December 31 of each year are used in the conventional manner to convert losses paid to losses incurred. Thus, to obtain incurred losses for any given class the losses outstanding at the close of the previous year are deducted from the paid of the given year. Those outstanding at the end are then added. The result represents losses incurred.

STATISTICAL PLAN FOR EXPENSES

As a companion to the Statistical Plan for Earned Premiums and Incurred Losses the Statistical Plan for Expenses was also developed by the National Board and went into effect January 1, 1951. The purpose of the Expense Plan was to produce for any given State and year figures representing total expenses on direct business for fire, extended coverage and other allied lines.

Like the Statistical Plan for Earned Premiums and Incurred Losses, the Statistical Plan for Expenses became effective for duly elected subscribers but since its introduction two States have adopted the Plan and made it mandatory for all stock companies.

Reports on expenses are submitted by companies in a set of six different schedules which cover all of a company's allocable expenses during a given year. The first of the five schedules is for Commissions and Brokerage and in Schedule 1 companies show separately their fire, extended coverage and allied lines commissions by State. Schedule 2 follows the same pattern for Loss Adjustment Expenses, Schedule 3 for Taxes, Licenses and Fees, Schedule 4 for Boards and Bureaus Expenses, with Unusual Expenses being shown on Schedule 5.

The final Schedule — No. $\hat{6}$ — summarizes the totals of the amounts shown by individual States in Schedules 1 to 5 and is reproduced below as an illustration of other details of the Statistical Plan for Expenses.

NATIONAL BOARD OF FIRE UNDERWRITERS EXPENSE REPORT FOR YEAR 19....

Company or Group Name......Code No.....

1. Total expenses, excluding federal income and real estate taxes (Insurance Expense Exhibit, Part II, line 15, columns 2, 3 and 4).	
 2. Deduct: A. Expenses Specifically Assignable by State: (a) Sched. 1—Commissions and Brokerage (b) Sched. 2—Loss Adjustment Expenses (c) Sched. 3—Taxes, Licenses and Fees Incurred	
3. Expenses Not Specifically Assignable by State. (Items 1 less items 2).	
4. Direct Premiums Written (Insurance Expense Ex- hibit Part II, line 17, columns 2, 3 and 4).	
Plainly identify all credit figures. Furnish with these Schedules a copy of your Insurance Expense Exhibit or Exhibits.	Signature Title

Schedule No. 6. Recapitulation and Reconciliation.

FIRE

EXTENDED COVERAGE

DOLLARS CTS. DOLLARS CTS. DOLLARS CTS.

OTHER ALLIED LINES

From Schedule 6 it will be noted that Expense Exhibit totals are given on Line 1 and that the totals of Schedules 1 to 5 are entered in Section 2 A.

Amounts shown in Section 2 B of Schedule 6 are expenses connected with reinsurance and are shown so that figures on Line 3 will contain all unallocable company expenses properly chargeable to the production and handling of direct business.

Line 3 of Schedule 6 being obtained by deducting totals of Schedules 1 to 5 and certain reinsurance expenses from Expense Exhibit totals, represents expenses on direct business which have not been included in Schedules 1 to 5. It appears in order to explain that companies are expected to assign to Schedules 1 to 5 only those expenses which can readily be separated by State. Any item which cannot be readily assigned automatically finds its way to Line 3 of Schedule 6 where other items not covered by Schedules 1 to 5 also appear.

Upon receipt in the Actuarial Bureau the expense reports from the various companies are combined and totals of amounts specifically assigned by States obtained. The total of expenses not specifically assigned as entered on Line 3 of Schedule 6 is also produced and this total is distributed to States according to the volume of premiums written in each State by the reporting companies. When this calculated amount for any given State is added to the total of Schedules 1 to 5 for the same State a figure representing total expenses for direct business in that State is the result.

CATASTROPHE DATA

For the purpose of obtaining information on the losses paid for the various tornadoes, hurricanes and similar catastrophes which occur each year, the National Board began in April 1949 the practice of assigning a catastrophe serial number for all such occurrences. Such numbers are assigned whenever preliminary estimates indicate that the loss will amount to \$1,000,000 or more in any State. The procedure applies to subscriber companies alone and the various serial numbers are used by companies for identification of all losses resulting from each occurrence.

Losses paid for the various storms and other disasters are included with the reports of classified experience submitted to the Actuarial Bureau each year but a supplementary report of catastrophe losses is also supplied and these are tabulated to produce totals for the various storms.

NATIONAL BOARD STATISTICAL REPORTS

It has already been mentioned that tables showing annual losses as well as annual numbers of fire alarms appear in the reports of the National Board Committee on Statistics and Origin of Losses which comprises one section of the National Board Annual Proceedings. It has also been mentioned that estimated totals of monthly losses incurred appear in the press and have also appeared in the annual report of the Committee on Statistics and Origin of Losses since 1945.

Under the Standard Classification of Occupancy Hazards three types of report are produced each year for the entire country and for each State as well as for Alaska, Hawaii and Puerto Rico. The first set of reports on the written and paid basis started in 1947 and has been prepared annually since that time for all perils. The second series began with 1953 experience and is on the earned and incurred basis for fire and extended coverage only. The third series is a written-paid five-year composite. The first of these reports covered the period 1947 to 1951 and new tabulations covering the five latest years are also prepared annually.

All of these figures are regarded as confidential and are supplied to the insurance departments and rating bureaus of the respective States and also to member and subscriber companies. The National Board differs from certain other organizations in that it has no jurisdiction or control over premium rates.

APPENDIX

CLASSIFICATION OF FIRE, PROPERTY DAMAGE

Major Peril 10

I Residential

Group 1—Residential—including incidental garages and outbuildings

NOTE: — The three Dwelling classes, Code Nos. 009, 019 and 029, have been assigned final digit "9" which is reserved and has not been assigned to other classes in order to facilitate the machine sorting of this type of business. In each of these three classes, "Dwelling" includes those risks as classified by Rating Bureau, not more than four families, and does not include seasonal or farm dwellings.

Class No. 009—Household contents of Dwellings, when contents are written on separate policy.

- " " 019—Dwellings—Buildings and Contents, when both are written on same policy.
- " " 029—Dwellings—Buildings only when written on separate policy.
- " "002—Household Contents in Mercantile Buildings (Group 2).
 - " 007—Boarding and Rooming Houses (except seasonal), Nurses' and Sisters' Homes, Fraternity and Sorority Houses—Buildings and Contents.
- " " 011—Seasonal Dwellings, Seasonal Boarding and Rooming Houses, Camps, Auto Courts, Tourist Cabins—Buildings and Contents.
- " " 021—Farm Property including Tobacco Barns, Live Stock, Growing Crops and Hay and Grain in Stacks—Buildings and Contents.
- " " 030—Large Area Housing Developments under Single Ownership (which receive special rating considera-

tion).

- " " 031—Apartment Buildings (more than four families) without Mercantile Occupancy.
- " " 032—Apartment Buildings (more than four families) with Mercantile Occupancy.
- " " 033—Household Contents of Apartments (Classes 030, 031 and 032).

II. Mercantile

Group 2—Mercantile Buildings—predominantly Retail or Wholesale Occupancy

- Class No. 041—Stores and Dwellings (designed for not more than four families).
 - Schedule or Class Rated.
 - " " 042—Mercantile Buildings (without dwelling occupancy). Class Rated.
 - " " 043—Mercantile Buildings (other than Class 041). Schedule Rated.

Group 3 — Mercantile Contents — Retail or Wholesale.

Class No. 051-Heavy Stocks including Machinery.

(Including those of low susceptibility).

- " 052—Wearing Apparel and Textiles.
- " " 053—Food Products and Beverages.
- (Excluding Restaurants and Bars).
- " " 054-Restaurants and Bars.
- " " 056—Light Merchandise including Mixed Stocks.
 - " 057-Extra Hazardous Stocks.

(Including those of high susceptibility).

III Non-Manufacturing (Buildings and Contents)

Group 4 — Non-Manufacturing.

- Class No. 070—Office and Bank Risks including Telephone Exchanges and Telegraph Central Stations and Radio Broadcasting Facilities.
 - " " 075—Hotels, Commercial Boarding and Lodging Houses, Clubs (City and Country).
 - " " 083—Theatres and Auditoriums.
- Class No. 084—Places of Amusement, Sports and Public Assembly, not included in 083.
 - 085—Hospitals, Sanatoriums, Orphanages, Homes for the Aged and Asylums (except where inmates are under restraint).
 000 Churches and Changle
 - " " 090-Churches and Chapels.
 - " " 093-Automobile Garages, Service and Filling Stations.
 - " " 094—Airplane Hangars.
 - " " 100-Penal Institutions including institutions where in-

mates are under restraint.

- " 105-Educational Institutions (Public or Private) including Libraries and Museums and Auxiliary Buildings on Premises.
- " 110-Bridges, Piers, Wharves and Docks including Coal and Ore Docks. "
 - 115—Builders' Risks (except Dwellings as classified by Rating Bureau and designed for not over four family occupancy-See Classes Nos. 011, 019 and 029).

Group 5—Warehouse and Storage

Class No. 121-Warehouses-General, Merchandise, Wool.

- 122-Warehouses-Household Furniture.
 - a " 123-Warehouses-Cold Storage.
 - " " 125-Warehouses-Grains, Beans, Seeds, Peanuts and Rice.
 - " " 130—Warehouses—Cotton including Cotton Compresses and Yards.
 - " " 135-Warehouses-Fibres (except Cotton and Wool) including Fibre Storage Yards. "
 - " 140-Warehouses-Waste Paper, Rag and Junk.
- " " 145-Warehouses-Whiskey, Wines and Spiritous Liquors.
- Class No. 150-Warehouses-Tobacco, including Sales, Storage and Rehandling Houses (for Tobacco Barns, See Class 021).
 - " "
 - 155—Grain Elevators, Tanks and Warehouses—Terminal. 161—Grain Elevators, Tanks and Warehouses—Country. " " " "
 - 165-Lumber Yards, Coal and Wood Yards, Building Material Yards.

IV Manufacturing

(Buildings and Contents)

- Group 6 Food and Kindred Products
- Class No. 200—Dairy Products including Ice Cream Manufacturing and Ice Factories. "
 - " 205-Meat Products-Slaughtering, Packing, Curing, Canning and Quick Freezing, including Stock Yards.
 - " " 210—Fish Products—Packing, Canning, Curing and Quick Freezing.
 - " " 215-Grain Milling and Other Milling and Cereal Factories, including Feed Mills and Stock Food Manufacturing and Starch Factories.
- Class No. 220—Bakeries and Confectionery Products including Cracker, Cake, Macaroni and Chewing Gum Factories. "
 - 225 --Canning, Preserving and Processing of Foods (except Dairy, Meat and Fish Products) including Dehydrating, Quick Freezing and Coffee Roasting and Salad Oil Preparations.

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- Class No. 230-Sugar, Molasses and Syrup Refining.
 - 235—Beverages (not made in Distilleries, Breweries or Wineries) including Vinegar Works.
- Class No. 240-Breweries including Malt and Yeast Manufacturing.
 - " " 245—Distilleries.
 - " " 250-Wineries.
 - " " 255—Tobacco Factories including Snuff.

Group 7 — Textiles — Raw and Finished

- Class No. 275-Cotton Gins including Auxiliary Buildings.
 - 280—Cotton and Woolen Mills, Textile Knitting and Weav-ing Mills, Thread and Yarn Manufacturing, Bleach-" eries, Dye and Print Works, Embroidery and Felt Mills, Carpet Factories, Rope, Cordage and Twine Factories.
- Group 8 Clothing and Cloth Products
- Class No. 300-Clothing Factories.
- " 305-Millinery and Hats.
- Class No. 310-Cloth Products (other than Clothing) including Mattress Factories and Sewing Risks (except as otherwise classified) and Window Shade Factories.
- Group 9 Furs and Fur Goods.
- Class No. 330-Fur Dressing, Dyeing, Blending, Sewing.
- Group 10 Leather and Leather Goods
- Class No. 340-Tanneries including Hide Processing.
 - 345-Patent Leather Manufacturing. "
 - " " 350-Shoe and Slipper Factories.
 - " "
 - 355—Industrial Belting and Heavy Leather Goods. 360—Light Leather Products—Gloves, Bags, Bindings. " "

Group 11 — Wood Products

Class No. 380—Sawmills and Planing Mills. Shingle, Lath and Stave Mills.

- " " 385-Mill Yards (For other Yards, see Class 165). "
- " 391-Veneer Mills and Laminated Wood Factories. "
 - 395-Woodworking including Furniture Factories, Shops " and Cabinet Work.
- 400-Cooperage-Boxes, Baskets, Crates, Excelsior Mills, " " Wood Flour Manufacturing, Cork Products.
- 66 " 405-Broom and Brush Factories. "
- " 410—Wood Preserving Plants.

Group 12 — Paper and Pulp

- Class No. 440—Paper and Pulp Manufacturing. "
 - 445—Paper Products including Coating and Finishing, Boxes, Tubes, Bags, etc.
 450—Pulp Wood Yards, Straw Yards and Baled Waste
 - " " Paper in Yards.

- Group 13 Printing and Applied Industries
- Class No. 480-Printing, Newspapers, Periodicals and Job including Book Binding. "
 - " 485-Lithographing, Photo-Engraving and Rotogravure Plate Processing (not done in Printing Plant).
- Group 14 Chemicals and Allied Products Including Paint and Pharmaceutical Factories

Class No. 500-Chemical Works-non-hazardous.

- 505-Chemical Works-hazardous. "
 - " 510-Chemical Works-extra hazardous.
- Group 15 Plants Fabricating Plastic, Bone, Celluloid and Shell Products
- Class No. 550-Plastic, Bone, Celluloid and Shell Products Fabricating (Including Synthetics).
- Group 16 Rubber Products
- Class No. 575-Light Rubber Goods and Sundries (including synthetic rubber). "
 - " 580—Heavy or Industrial Rubber Products including Tires (including synthetic rubber).
- Group 17 Stone, Clay and Mineral Goods

Class No. 600-Stone Crushing, Cutting, Quarrying including Cement and Gypsum Plants and Sand and Gravel Plants. "

- 605-Industrial Abrasives and Asbestos Plants. "
- " " 610—Plaster Products Manufacturing
- " "
- 615—Brick, Tile and Clay Products. 621—Mining Risks (other than Coal) including Salt Works. " " "
 - " 625-Mining Risks-Coal including Dredges.
- Group 18 Glass and Glass Products
- Class No. 651-Glass and Glass Products Factories (other than as classified below).
 - " " -Cut, Ground, Blown and Art Glass Factories. 655 -
 - " " 660—Optical Goods and Lenses.

Group 19 — Metalworkers

Class No. 681—Heavy Metalworkers including Structural Steel. Heat Treating, Foundries and Heavy Machinery.

- " " 685-Light Metalworkers-Machine Shops, and Light Machinery and Metal Specialties including Cutlery Man-
- ufacturing. 690—Precision Products—Watch, Instruments, Radio " " Parts, Jewelry Manufacturing.

Group 20 — Public Utilities

- Class No. 730—Electric Traction Property including Trackless Trolleys (excluding Auto Buses).
 - " " 735—Electric Generating Stations and Auxiliary Risks.

- " 740-Coal, Water and Oil Gas Plants and Natural Gas Pumping Stations.
- Class No. 745-Water Works, Pumping Stations, Filtration and Sewerage Plants, Police and Fire Department Stations and Disposal Plants and Incinerators. "
 - " 750—Scheduled Railroad Property.

Group 21 — Laundries and Dry Cleaning

- Class No. 780-Hand and Power Launderies including Dry Cleaning Establishments using only approved solvents (except for spotting).
 - " " 785-Laundries and Dry Cleaning Establishments (other than as classified under Class No. 780).

Group 22 - Oil Risks

- Class No. 800-Oil Refining-Mineral and Petroleum including all Property used in connection therewith. **
 - " 805—Casing Head Gasoline Plants, Natural Gas and Crude Oil Pumping Stations, Air and Gas Lift Power Houses, Repressuring Plants.
 - " " 810-Oil Distribution and Tank Wagon Stations.
 - " " 815-Oil and Gas Well Lease Properties. **
 - " 820-Non-Mineral Oil Works-Cottonseed, Linseed, Fish, Soya Bean, etc.

V Sprinklered Risks

- Class No. 900—Sprinklered Risks (other than Manufacturing) Buildings. "
 - " 905—Sprinklered Risks (other than Manufacturing) Contents.
 - " " 910—Sprinklered Risks (other than Manufacturing) Buildings and Contents-Blanket.
- Class No. 915-Sprinklered Risks (Manufacturing) Buildings.

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- 66 " 920 -
- -Sprinklered Risks (Manufacturing) Contents. -Sprinklered Risks (Manufacturing) Buildings and " " 925 -Contents-Blanket.

For converting the written premiums by term to earned premiums, it might have been possible to use the statutory fractions such as used in the previous example but for the purpose of recognizing the effect of cancellations a set of factors slightly different from the statutory fractions are computed each year and used instead. The factors are obtained from an annual report supplied by companies entitled "Summary Direct Premiums Written and Contributions to In Force," which for the year 1954 appears as follows:

SUMMARY DIRECT PREMIUMS WRITTEN AND CONTRIBUTIONS TO IN FORCE For the Year Ended December 31, 1954

Company	or	Group	or	Reporting	Association
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EFFECTIVE	TERMS	FIRE — Major	Perils 10 & 11	Ext. Cov. Major Perils 20 to 28		
YEARS		Direct	Direct	Direct Direct		
		Premiums	Contributions	Premiums	Contributions	
		Written 1954	To In Force 1954*	Written 1954	To In Force 1954*	
		\$	\$	\$	\$	
1954	1 yr. or less					
1954	2 years					
1954	3 years					
1954	4 years					
1954	5 yrs. or over		17 17 17 17 17		17 17 17 17 17 17	
1953	1 yr. or less		XXXXX		XXXXX	
1953	2 years					
1953	3 years					
1953 1958	4 years 5 yrs. or over					
1953	1 yr. or less		XXXXX		XXXXX	
1952	2 years		XXXXX		XXXXX	
1952	3 years		ллллл		ΛΛΛΛΛ	
1952	4 years					
1952	5 yrs. or over					
1951	1 yr. or less		XXXXX		XXXXX	
1951	2 years		XXXXX		XXXXX	
1951	3 years		XXXXX		XXXXX	
1951	4 years					
1951	5 yrs. or over					
1950	1 yr. or less		XXXXX		XXXXX	
1950	2 years		XXXXXX		XXXXX	
1950	3 years		XXXXX		XXXXX XXXXX	
1950 1950	4 years		XXXXX		XXXXX	
	5 yrs. or over					
All prior eff. years	all terms		XXXXX		XXXXX	
Advance Prei			лалал		AAAAA	
All years	all terms		XXXXX		XXXXX	
Reporting As			<u> </u>		<u> </u>	
All years	all terms		XXXXX		XXXXX	
Canadian & C			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
Foreign Pren						
All years	all terms		XXXXX		XXXXX	
		\$	\$	\$	\$	
TOT	ALS	To agree with		To agree with		
		Page6,Line1,	XXXXX	Page6,Line2,	XXXXX	
		Column 1		Column 1		
		<u> </u>				

See Reverse Side for Explanatory Notes.

SIGNED_

TITLE_

Study Explantatory Notes on Reverse Side Before Preparing This Report

ERRATA

The attached corrected pages should be pasted over pages 88 and 89 of volume XLIII of the proceedings for 1956.