

RECENT DEVELOPMENTS WITH RESPECT TO THE
DISTRIBUTION OF WORKMEN'S COMPENSATION
INSURANCE COSTS

BY

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It has been contended for several years that the procedure followed in developing rates for workmen's compensation insurance does not permit of an equitable distribution of costs among risks. This contention rests on two fundamental principles. First, that the expenses incurred in conducting the business are not wholly proportional to the premium size of risk but consist of the sum of a fixed amount per policy and an amount which is proportional to the premium, and second, that the loss cost varies with the size of the risk.

The logic of the contention as respects the distribution of expenses becomes apparent upon consideration of the elements which make up the total expense incurred on this line of insurance. Heretofore the amount available for expenses on a risk has been equivalent to the product of the expense loading and the total premium for the risk. The only exception has been in the case of minimum premium risks. Production expenses and taxes vary with the gross rate, consequently a percentage loading in the rate distributes these expenses equitably. Claim adjustment expense may likewise be distributed equitably in the same manner. However, the expenses incurred for general administration, audit, and inspection cannot logically be treated as a function of the rate. For each policy issued the carrier must follow a definite procedure involving an expense which consists of a fixed minimum amount plus an additional amount which may be assumed to vary with the premium. For every policy the application must be reviewed, the risk classified and coded, the policy written, proper records established in the several departments, an inspection made, the premium collected, an audit made upon expiration of the policy, the records revised in accordance with the audit, etc. As these operations are performed for each policy, it is proper that each policy be charged an amount equal to the minimum amount incurred in connection with the small and less expensive

policies and that the remainder of the expense be provided for by a percentage loading in the rates.

As a matter of fact this principle has been recognized in the establishing of minimum premiums for this line. The general formula for determining minimum premiums has been

$$10 R + 8 \quad \text{where } R = \text{manual rate}$$

This formula contemplates a minimum payroll of \$1000 and provides a fixed amount of \$8 to meet the minimum expenses incurred in issuing and administering a policy. This constant of \$8 which was established in 1917, represents the estimated minimum fixed expense loaded for production and taxes. The details of the calculation of the constant are given in Table 1.

TABLE 1

CALCULATION OF CONSTANT USED IN PRESENT MINIMUM PREMIUM FORMULA

Policies Issued in 1916 (Excluding Policies "Not Taken") Compared with Expenses Paid in 1916 as Shown in N. Y. Schedule W Six Companies Combined

(1) Number of Policies	(2) Expense Item	(3) Amount Paid in 1916	Proportion of Expense Assumed to Have Been Incurred in Direct Ratio to Number of Policies Issued		
			(4) % of Total	(5) Amount (3) × (4)	(6) Amount per Policy (5) ÷ (1)
54,530	Inspection and Accident Prevention.....	\$152,781	50	\$76,390	\$1.40
	Pay-roll Auditing	107,585	80	86,068	1.58
	Miscellaneous Administration	438,938	40	175,575	3.22
	Total.....	\$699,304		\$338,033	\$6.20

$$\frac{\$6.20 \text{ (net charge)}}{.80} = \$7.75 \text{ or approximately } \$8.00 \text{ gross charge.}$$

However, the \$8 constant is available for expenses only on those minimum premium risks on which the pay-roll does not exceed \$1000. On those minimum premium risks on which the payroll exceeds \$1000 only a part of the \$8 constant is available for expenses; and on risks which develop premiums slightly in excess of the minimum premium the total amount available for administrative expenses may be very much less than that provided by the constant, as illustrated in Table 2.

TABLE 2
DISTRIBUTION OF PREMIUM ON RISKS OF VARIOUS SIZES
Manual Rate \$1.00—Minimum Premium \$18 (10 R + 8)

(1) Payroll	(2) Premium at Manual Rate Col. (1) $1 \times \frac{\quad}{100}$	(3) Actual Premium	Distribution of Premium*		
			(4) Losses & Loss Exp. .68 × Col. (3)	(5) Production and Taxes .20 × Col. (3)	(6) Adminis- tration, Audit and Inspection .12 × Col. (3)
1,000	10.00	18.00	6.80	3.60	7.60
1,500	15.00	18.00	10.20	3.60	4.20
1,800	18.00	18.00	12.24	3.60	2.16
2,000	20.00	20.00	13.60	4.00	2.40
2,500	25.00	25.00	17.00	5.00	3.00
5,000	50.00	50.00	34.00	10.00	6.00
6,333	63.33	63.33	43.06	12.67	7.60
7,500	75.00	75.00	51.00	15.00	9.00
10,000	100.00	100.00	68.00	20.00	12.00

*Distribution based on expense loading of 40% made up as follows:

Administration.....	7.5%	Taxes.....	2.5%
Claim Adjustment.....	8.0%	Payroll Audit.....	2.0%
Inspection.....	2.5%	Production.....	17.5%

It is apparent from Table 2 that the amounts produced by minimum premium risks for administrative expenses decrease as the exposure increases until the exposure reaches the point at which the premium at manual rates equals the minimum premium. Beyond this point the amount available for administrative expenses increases proportionately with the increase in premium. Under these conditions minimum premium risks which develop exposure somewhat greater than \$1000 and a group of risks which develop premiums somewhat greater than the minimum do not produce sufficient premium to provide for expenses.

There is a general agreement to the principle of providing a minimum charge per policy for expenses supplemented by a percentage loading in the rates but there is some disagreement as to the amount of the minimum charge. The National Bureau of Casualty and Surety Underwriters developed a minimum expense charge of \$12 per policy, based upon the assumption that 50% of the general administration expenses and 75% of the audit expenses are proportional to the number of policies. The details of this calculation are shown in Table 3. It is of interest to note that a charge of slightly more than \$13 would result from the

substitution of the percentages used in developing the \$8 constant in the present minimum premium formula (see Table 1) for the percentages shown.

TABLE 3
CALCULATION OF POLICY FEE

Policies Issued in 1924 (excluding Policies "Not Taken") Compared with Expenses Incurred in 1924 as shown in N. Y. Casualty Exhibit 13 Companies Combined

(1)	(2)	Allocation of Expenses in Direct Ratio to Number of Policies Issued		
		(3)	(4)	(5)
	Amount	% of Total	Amount (2) × (3)	Amount per Pol. (4) ÷ 291,965
Number of Policies Issued (excluding Policies not taken).....	291,965	.....	
Payroll Audit Expense.....	\$1,226,148	75	\$919,611	\$3.15
Inspection and Accident Prevention Expense.....	1,073,889	.....	.....	.....
General Administration Expense (excluding Payroll Audit).....	3,877,723	50	1,938,862	6.64
			Net Fee	\$9.79

$$\frac{\$9.79 \text{ (Net Charge)}}{.80} = \$12.24 \text{ or approximately } \$12 \text{ gross charge}$$

The Conference Committee on Revision of Workmen's Compensation Rate Making Formulae which was appointed by the Superintendent of Insurance of New York, developed a policy charge of \$10. This amount was arrived at by substituting 37.8% for the percentage shown in Table 3 as the proportion of general administration expense which might properly be assumed to be proportional to the number of policies. 37.8% is based primarily upon a cost analysis prepared by a large stock company upon its business for calendar year 1925 and produces an amount per policy of \$5.02. The use of 37.8% appears conservative inasmuch as the average premium of the carrier which developed this figure is appreciably greater than that of the 13 companies to the experience of which this percentage was applied.

A minority report of the Conference Committee submitted in connection with the determination of the amount of the mini-

imum charge per policy recommends the adoption of a fee of \$5.00. This amount was arrived at by making a time cost analysis within a single company and assumes 100% efficiency on the part of employees. A substantial portion of the overhead and administration expenses such as executive, administration, financial and supervisory departments were assumed to be chargeable to premium volume only and consequently were not considered in arriving at the amount of charge. An average of six audits per day per auditor were assumed and allowance was made only for biennial audits. The details of the calculation are shown in Table 4.

TABLE 4
CALCULATION OF POLICY EXPENSE CHARGE
Minority Report of Conference Committee

	Underwriting, Accounting and Statistical	Auditing Inside Every Year	Auditing Outside— Every Other Year
Number of Minutes.	93.0	50.0	35.0
Salary per Minute.	\$0.0122	\$0.0122	\$0.0169
Salary Cost.	\$1.14	\$0.61	\$0.59
Overhead Cost.	\$0.57	\$0.31	\$0.59
Total Cost.	\$1.71	\$0.92	\$1.18

SUMMARY

	Indicated Cost	Adopted Cost
Underwriting, Accounting and Statistical.	1.71	2.00
Auditing.	2.10	2.00
Total Net Cost.	3.81	4.00
Net Cost Loaded 17½% for pro- duction and 2½% for taxes.	4.76	5.00

The National Council on Compensation Insurance has adopted a policy charge for expenses of \$10 as recommended in the majority report of the Conference Committee.

A comparison of estimates of the proper minimum charge for administration cost submitted by individual carriers, and shown below, appears to substantiate the estimate of \$5 which is included for this item in the \$10 charge recommended in the majority report of the Conference Committee:

Individual Stock Company Estimate.....5.34
 Individual Mutual Company Estimate.....1.71
 New York State Fund Estimate.....4.37
 California State Fund Estimate.....5.80
 National Bureau Estimate.....6.64

A similar comparison of estimates with respect to payroll audit costs appears to corroborate the selection of \$3 which is included for this item in the \$10 charge:

Individual Stock Company.....4.76
 Individual Mutual Company...2.10
 California State Fund.....6.56
 National Bureau.....3.15

The estimate of \$6.56 shown for the California State Fund represents the average audit cost per policy for policies falling within the premium group \$50-\$300, and not the minimum cost.

As the adoption of a fixed minimum charge per policy for expenses is proposed as a means of redistributing expenses and not as a means of increasing the total amount available for expenses, it becomes necessary to revise the expense loading in such a manner as to produce in the aggregate the amount now available. In theory the fixed charge should be applied to every policy regardless of size but for practical reasons it has been deemed advisable to apply the charge only to those policies on which the premium is less than the average annual premium required for qualification for experience rating. The revised loading to be used in conjunction with a policy charge to be applied in this manner may be calculated in accordance with the general formula

$$\frac{eP - [nK + n'(K - c)]}{P - [nK + n'(K - c)]}$$

Where c = average amount realized from constant in minimum premium formula

e = existing expense loading

K = amount of policy charge

n' = number of minimum premium risks

n = number of risks (excluding minimum premium risks) to which policy charge is to apply

P = total actual earned premium for all risks

It is, of course, assumed that the use of a constant in the minimum premium formula will be discontinued concurrently with the adoption of a policy expense charge.

The case with respect to the variations in loss cost with varia-

tions in size of risk is supported by loss ratio experience by premium size of risk. It is not the purpose of this discussion to attempt to determine the causes which bring about the variations in loss costs by size of risk but merely to describe briefly, proposals which have been submitted as possible means of recognizing such differences in loss costs as are indicated.

By way of illustration the experience for New York State for policy years 1924 and 1925 is given in Tables 5 to 14 inclusive. These tabulations show the experience by premium size group separately for non-participating and participating carriers for each policy year and for the two years combined, the combined experience of all carriers for each of the two years and for both years combined, and the experience by industry group by class of carrier for both policy years combined. The experience shown for non-participating carriers is that which was compiled by the National Bureau of Casualty and Surety Underwriters and that shown for participating carriers was compiled by the New York Compensation Inspection Rating Board. The data indicated for minimum premium risks includes all such risks irrespective of the size of premium. However, it should be pointed out in connection with Tables 8 to 13 inclusive that the State Fund did not report minimum premium risks as such but included them in the appropriate premium size group.

The premiums shown in these tabulations are collected premiums, consequently the indicated loss ratio differentials do not accurately reflect the actual conditions. The premium for minimum premium risks includes not only the premium developed by the application of manual rates to payrolls but also the effect of the \$10 constant in the minimum premium formula¹. Other factors which affect the premiums are the off-balance of merit rating plans and changes in manual rates. The experience rating plan produces a net credit in New York State with the result that the premiums shown for risks of \$400 or over² are less than would be produced at manual rates, thereby increasing the loss ratios for such risks and for all risks combined and diminishing the range of loss ratio differentials.

¹The minimum premium formula effective in New York State during the period covered by this experience was $5 X \text{ rate} + \$10$.

²\$400 average annual premium is approximately the premium qualification for experience rating in New York.

However, even upon the basis of collected premiums, there is a pronounced decrease in loss ratio as the size of premium increases. This is apparent in the experience of each policy year and of each class of carrier. Although this trend appears in each industry group there are marked variations among the several groups.

Several methods have been proposed by which the rate making procedure might be modified to recognize indicated differences in loss costs by size of risk. One proposal provided for establishing the rate level at the point indicated by experience of non-experience rated risks and provided for discounts from manual rates to be incorporated into the experience rating plan and to be applied to risks which develop sufficient premium to qualify for experience rating, the amount of the discount to increase as the size of risk increased. The effect of such a plan would be to provide for a uniform level of rates applicable to all non-experience rated risks and would not recognize differences in loss ratio differentials among such risks, although such differences would be recognized on risks which developed sufficient premium to qualify for experience rating.

Another proposed method provided for an increase in the premium of each risk with a payroll below a given amount, by an amount determined by multiplying the rate for such risk by a constant amount of payroll. As the amount to be added to risks of any one class would be uniform the effect of such a plan would be similar to that produced by a graduated percentage loading. Such a plan would in a general way recognize variations in loss ratio differentials on small risks by size as well as by industry. There are practical objections to the proposal due to the difficulty of determining the governing classification and of terminating its application at a particular amount of payroll.

A third proposal, developed by the Conference Committee, has been adopted in New York State. This plan provides for a charge of a flat amount of premium, termed a "loss constant", to be applied to all risks which develop a premium of less than \$400; the amount of the "loss constant" to vary by industry group and the increase in the total premium volume produced thereby to be offset by a reduction in rate level.

The manner in which the values of the "loss constant" and the corresponding reductions in rate level were determined is illustrated in Table 15 and 16. In its calculations the Committee

took into consideration two elements which form a part of the general revision of workmen's compensation rate making formulae but which could be considered independently from loss constants; viz., the effect of the revision of the minimum premium formula³ and the off-balance of the experience rating plan.

The data in Table 15 represent the combined experience of all carriers which reported experience by industry group. In each instance the experience of minimum premium risks has been included in the premium size group "under \$150". Premiums shown in the table are collected premiums.

The details of the calculation of the loss constants and corresponding reductions in rate level are given in Table 16. Brief explanatory notes relative to the table are submitted below:

Column (1) These premiums are actual earned premiums shown in Table 15.

Column (2) In this column the actual premiums of each policy year for the size group "\$400 and over" have been brought to the manual levels of that year by adjusting the premiums for the off-balance of the experience rating plan.

Column (3) Here the manual premiums for each policy year have been brought to the future manual rate level based upon the experience of policy years 1923, 1924, and 1925 on the October 1, 1927 law level.

Column (4) These loss ratios are the ratios of losses shown in Table 15 to premiums on future manual level, column (3).

Column (5) The factors used to develop the premiums in the column are ratios of loss ratios indicated for the group "\$400 and over" to total loss ratios.

Column (6) The factors indicated in this column are ratios of loss ratios of the group "0-399" based upon the premiums in column (5) to total loss ratios indicated in column (4).

Column (7) In this column the manual rate level is increased by factors designed to offset the expected net credits resulting from future experience rating. The excess on risks over \$400 above the amounts indicated in column (5) will be eliminated by experience rating. The deficiency on risks under \$400 below the amounts indicated in column (6) will be made up from minimum premiums and loss constants.

Column (8) The estimated additional premium to be realized from a minimum premium formula of 15 X rate is shown in this column.

³A minimum premium formula of 15 X rate was adopted in New York concurrently with the adoption of loss constants and a policy expense charge.

Column (9) The balance of the deficiency which is to be derived from loss constants is given here.

Column (10) The premiums in this column are total premiums to be realized from the application of the plan.

Column (11) shows loss ratios on the basis of premiums in column (10).

Column (12) The amount of the loss constant to be applied to each policy as shown in this column was obtained by dividing the total amount to be derived from loss constants as shown in column (9) by the number of risks under \$400 as shown in Table 15.

Column (13) The modifications of the manual rate level due to the introduction of loss constants and adjustments to offset the net credits resulting from the application of the experience rating plan are shown in this column.

The actual loss constants and corresponding offsetting reductions in manual rates adopted by the Conference Committee⁴ and approved by the Superintendent of Insurance are as follows:

Industry Group	Loss Constant	Offsetting Reduction in Manual Rates
Manufacturing.....	\$20.00	2.5%
Contracting.....	40.00	5.0
All Other.....	4.00	0.0

The calculations made in Table 16 and the general formula for the calculation of a revised expense loading to be used in conjunction with a policy expense charge, appearing on page 267, are each based upon the assumption that the full amount of the charge will be collected on each risk shown by the experience to fall within the group to which such charge is to be applied. In actual practise these assumptions will not be borne out for the reasons cited below:

1. Changes in rate level subsequent to the period for which experience has been tabulated will affect the number of risks within a given premium group.
2. The introduction of a fixed charge per policy may reasonably be expected to bring about the consolidation of multiple policies covering the operations of one assured.
3. Many of the risks reported in the experience represent

⁴A more comprehensive statement of this entire problem and of conclusions reached with respect to New York State will be found in the "Report of Conference Committee on Revision of Workmen's Compensation Rate Making Formulae" filed with the New York Insurance Department, December 17, 1927.

cancelled or short term policies on which the full amount of the charge presumably will not be collected.

4. In application it probably will be necessary to grade off the charge as the premium approaches the maximum sized risk to which the charge is to apply.

In view of these facts the actual reduction in rate level introduced to offset the effect of a policy charge should be somewhat less than that indicated by the experience.

In a state in which both loss constants and a policy expense charge are to be applied the amount of the expense charge should be reduced to the point where the net amount available from such charge plus that part of the loss constant available for the expenses contemplated by the expense charge will equal the net amount of the expense charge required per policy. For example, the Superintendent of Insurance of New York State approved a net policy expense charge of \$4. It was estimated that the average amount of the loss constants is such that the loading included therein for general administration and audit expense plus the net amount available for such expenses from a gross policy expense charge of \$3 are equivalent to a net amount of \$4, or a gross charge of \$5.

The size of risk experience which has been compiled for certain states does not appear to indicate a need for the redistribution of loss costs by size of risk within such states. In those states in which the experience does not indicate any very appreciable loss ratio differential by size of risk, it is possible that a comparison of manual loss ratios might alter the indications appreciably. It may be that a comparison of loss ratios by size measured in terms of exposure would indicate more or less uniform results from state to state. Experience in such form, however, is not available.

The necessity for a redistribution of expenses by size of risk to be applied to all states is apparent even for those states which develop a dependable volume of experience and which do not indicate the need for a redistribution of loss costs by size of risk. No attempt has been made in this discussion to explain the possible causes underlying the variations in loss ratio experience by size of risk since such explanations as have been put forth have been conjectural. It is to be hoped that further study of this problem will disclose the underlying causes.

TABLE 5
NEW YORK COMPENSATION EXPERIENCE BY SIZE OF RISK
Policy Year 1924

Compiled by National Bureau 8/15/27

Experience of 24 Stock Companies Reported to the National Bureau

All Industry Groups Combined

Premium Group	Number of Risks	Premium Earned	Losses Incurred	Loss Ratio			% of Total Risks			% of Total Premium			Avg. Premium Per Risk			Loss Ratio Differential*
				Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	
Minimum Premium	43,309	797,505	590,569	.741	.741	.673	28.20	28.20	100%	3.06	3.06	100%	\$18	\$18	\$170	1.101
0— 24	24,122	403,406	358,648	.889	.790	.671	15.71	43.91	71.80	1.55	4.61	96.94	17	18	229	1.321
25— 49	28,098	1,013,569	953,395	.941	.859	.667	18.30	62.21	56.09	3.89	8.50	95.39	36	23	288	1.398
50— 74	15,067	925,409	754,712	.816	.846	.656	9.81	72.02	37.79	3.55	12.05	91.50	61	28	411	1.212
75— 99	9,006	778,574	643,931	.827	.842	.649	5.86	77.88	27.98	2.99	15.04	87.95	86	33	533	1.229
100— 149	9,974	1,213,873	997,839	.822	.838	.643	6.50	84.38	22.12	4.66	19.70	84.96	122	40	651	1.221
150— 199	5,445	944,876	712,875	.754	.825	.633	3.55	87.93	15.62	3.63	23.33	80.30	174	45	872	1.120
200— 299	5,916	1,444,786	1,080,400	.748	.810	.627	3.85	91.78	12.07	5.55	28.88	76.67	244	53	1,077	1.111
300— 399	3,206	1,113,333	773,513	.695	.795	.617	2.09	93.87	8.22	4.28	33.16	71.12	347	60	1,467	1.033
400— 499	1,915	852,608	587,537	.689	.786	.612	1.25	95.12	6.13	3.28	36.44	66.84	445	65	1,848	1.024
500— 999	3,757	2,640,709	1,696,687	.643	.754	.609	2.45	97.57	4.88	10.14	46.58	63.56	703	81	2,206	.955
1000— 1999	1,942	2,698,255	1,640,403	.608	.728	.602	1.26	98.83	2.43	10.36	56.94	53.42	1,389	98	3,713	.903
2000— 2999	690	1,672,864	1,118,724	.669	.722	.601	.45	99.28	1.17	6.42	63.36	43.06	2,424	108	6,212	.994
3000— 4999	509	1,949,277	1,112,192	.571	.706	.589	.33	99.61	.72	7.49	70.85	36.64	3,830	121	8,556	.848
5000— 9999	372	2,476,890	1,438,739	.581	.691	.593	.24	99.85	.39	9.51	80.36	29.15	6,658	136	12,526	.863
10000—19999	146	1,966,538	1,262,459	.642	.687	.600	.10	99.95	.15	7.55	87.91	19.64	13,469	149	21,855	.954
20000—29999	51	1,262,119	734,184	.582	.681	.573	.03	99.98	.05	4.85	92.76	12.09	24,747	157	35,766	.865
30000 & Over	37	1,885,330	1,069,200	.567	.673	.567	.02	100%	.02	7.24	100%	7.24	50,955	170	50,955	.842
Total	153,562	26,039,921	17,526,007	.673	..	..	100%	..	..	100%	..	..	170	..	..	1.000
Five Size Groups																
Minimum Premium	43,309	797,505	590,569	.741	.741	.673	28.20	28.20	100%	3.06	3.06	100%	\$18	\$18	\$170	1.101
0— 399	100,834	7,837,826	6,275,313	.801	.795	.671	65.66	93.86	71.80	30.10	33.16	96.94	73	60	229	1.190
400— 999	5,672	3,493,317	2,284,224	.654	.754	.612	3.69	97.55	6.14	13.42	46.58	66.84	616	81	1,848	.972
1000— 4999	3,141	6,320,396	3,871,319	.613	.706	.602	2.05	99.60	2.45	24.27	70.85	53.42	2,012	121	3,713	.911
5000 & Over	606	7,590,877	4,504,582	.593	.673	.593	.40	100%	.40	29.15	100%	29.15	12,526	170	12,526	.881
Total	153,562	26,039,921	17,526,007	.673	..	..	100%	..	..	100%	..	..	170	..	..	1.000

*Loss Ratio differentials are the loss ratios for the various size groups in the Individual Group column divided by the average loss ratio for all size groups combined.

TABLE 6
NEW YORK COMPENSATION EXPERIENCE BY SIZE OF RISK
 Policy Year 1925

Compiled by National Bureau 8/15/27

Experience of 27 Stock Companies Reported to the National Bureau

All Industry Groups Combined

Premium Group	Number of Risks	Premium Earned	Losses Incurred	Loss Ratio			% of Total Risks			% of Total Premium			Avg. Premium Per Risk			Loss Ratio Differential*
				Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	
Minimum Premium	52,022	1,022,683	538,346	.526	.526	.585	27.83	27.83	100%	2.79	2.79	100%	\$20	\$20	\$196	.899
0— 24	27,010	450,379	421,464	.936	.652	.586	14.45	42.28	72.17	1.23	4.02	97.21	17	19	264	1.600
25— 49	32,731	1,174,100	1,034,756	.881	.753	.582	17.51	59.79	57.72	3.20	7.22	95.98	36	24	326	1.506
50— 74	18,402	1,120,842	779,424	.695	.736	.571	9.84	69.63	40.21	3.06	10.28	92.78	61	29	453	1.188
75— 99	11,297	974,183	739,116	.759	.741	.567	6.04	75.67	30.37	2.66	12.94	89.72	86	34	580	1.297
100— 149	13,240	1,615,441	1,178,510	.730	.738	.561	7.08	82.75	24.33	4.40	17.34	87.06	122	41	702	1.248
150— 199	7,071	1,220,360	816,209	.669	.727	.552	3.78	86.53	17.25	3.33	20.67	82.66	173	47	940	1.144
200— 299	7,930	1,933,399	1,236,172	.639	.709	.547	4.24	90.77	13.47	5.27	25.94	79.33	244	56	1,156	1.092
300— 399	4,326	1,495,449	916,708	.613	.696	.541	2.32	93.09	9.23	4.08	30.02	74.06	346	63	1,576	1.048
400— 499	2,558	1,146,098	720,317	.628	.690	.537	1.37	94.46	6.91	3.12	33.14	69.98	448	69	1,988	1.074
500— 999	5,270	3,648,779	2,025,510	.555	.659	.532	2.82	97.28	5.54	9.95	43.09	66.86	692	87	2,368	.949
1000— 1999	2,562	3,612,462	1,853,746	.513	.632	.528	1.37	98.65	2.72	9.85	52.94	56.91	1,410	105	4,104	.877
2000— 2999	905	2,185,597	1,187,902	.544	.623	.532	.48	99.13	1.35	5.96	58.90	47.06	2,415	117	6,839	.930
3000— 4999	730	2,780,217	1,374,836	.495	.608	.530	.39	99.52	.87	7.58	66.48	41.10	3,809	131	9,311	.846
5000— 9999	518	3,603,616	1,845,750	.512	.596	.538	.28	99.80	.48	9.82	76.30	33.52	6,957	150	13,830	.875
10000—19999	221	2,974,978	1,612,004	.542	.590	.549	.12	99.92	.20	8.11	84.41	23.70	13,461	166	23,427	.926
20000—29999	76	1,855,660	1,150,767	.620	.592	.552	.04	99.96	.08	5.06	89.47	15.59	24,417	176	38,108	1.060
30000 & Over	74	3,860,610	2,005,033	.519	.585	.519	.04	100%	.04	10.53	100%	10.53	52,170	196	52,173	.887
Total	186,943	36,674,853	21,436,570	.585	..	..	100%	..	..	100%	..	..	196	..	..	1.000
Five Size Groups																
Minimum Premium	52,022	1,022,683	538,346	.526	.526	.585	27.83	27.83	100%	2.79	2.79	100%	\$20	\$20	\$196	.899
0— 399	122,007	9,984,153	7,122,359	.713	.696	.586	65.26	93.09	72.17	27.22	30.01	97.21	82	63	264	1.219
400— 999	7,828	4,794,877	2,745,827	.573	.659	.537	4.19	97.28	6.91	13.08	43.09	69.99	613	87	1,988	.979
1000— 4999	4,197	8,578,276	4,416,484	.515	.608	.528	2.25	99.53	2.72	23.39	66.48	56.91	2,044	131	4,104	.880
5000 & Over	889	12,294,864	6,613,554	.538	.585	.538	.47	100%	.47	33.52	100%	33.52	13,830	196	13,830	.920
Total	186,943	36,674,853	21,436,570	.585	..	..	100%	..	..	100%	..	..	196	..	..	1.000

*Loss Ratio differentials are the loss ratios for the various size groups in the Individual Group column divided by the average loss ratio for all size groups combined.

TABLE 7
NEW YORK COMPENSATION EXPERIENCE BY SIZE OF RISK

Compiled by National Bureau 8/15/27

Policy Years 1924 and 1925 Combined

Experience of Stock Companies Reported to the National Bureau*

All Industry Groups Combined

Premium Group	Number of Risks	Premium Earned	Losses Incurred	Loss Ratio			% of Total Risks			% of Total Premium			Avg. Premium Per Risk			Loss Ratio Differential†
				Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	
Minimum Premium	95,331	1,820,188	1,128,915	.620	.620	.621	28.00	28.00	100%	2.90	2.90	100%	\$19	\$19	\$184	.998
0— 24	51,132	853,785	780,112	.914	.714	.621	15.02	43.02	72.00	1.36	4.26	97.10	17	18	248	1.472
25— 49	60,829	2,187,669	1,988,151	.909	.802	.617	17.86	60.88	56.98	3.49	7.75	95.74	36	23	309	1.464
50— 74	33,469	2,046,251	1,534,136	.750	.786	.606	9.83	70.71	39.12	3.26	11.01	92.25	61	29	434	1.208
75— 99	20,303	1,752,757	1,383,047	.789	.787	.601	5.96	76.67	29.29	2.80	13.81	88.99	86	33	560	1.271
100— 149	23,214	2,829,314	2,176,349	.769	.782	.595	6.82	83.49	23.33	4.51	18.32	86.19	122	40	680	1.238
150— 199	12,516	2,165,236	1,529,084	.706	.770	.585	3.68	87.17	16.51	3.45	21.77	81.68	173	46	911	1.137
200— 299	13,846	3,378,185	2,316,572	.686	.754	.580	4.07	91.24	12.83	5.39	27.16	78.23	244	55	1,122	1.105
300— 399	7,532	2,608,782	1,690,221	.648	.740	.572	7.21	93.45	8.76	4.16	31.32	72.84	346	62	1,530	1.043
400— 499	4,473	1,998,706	1,307,854	.654	.732	.567	1.31	94.76	6.55	3.19	34.51	68.68	447	67	1,929	1.053
500— 999	9,027	6,289,488	3,722,197	.592	.700	.563	2.65	97.41	5.24	10.03	44.54	65.49	697	84	2,300	.953
1000— 1999	4,504	6,310,717	3,494,149	.554	.673	.558	1.32	98.73	2.59	10.06	54.60	55.46	1,401	102	3,938	.892
2000— 2999	1,595	3,858,461	2,306,626	.598	.666	.559	.47	99.20	1.27	6.15	60.75	45.40	2,419	113	6,577	.963
3000— 4999	1,239	4,729,494	2,487,028	.526	.650	.553	.36	99.56	.60	7.54	68.29	39.25	3,817	126	9,003	.847
5000— 9999	890	6,080,506	3,284,489	.540	.636	.559	.26	99.82	.44	9.70	77.99	31.71	6,832	144	13,301	.870
10000—19999	367	4,941,516	2,874,463	.582	.631	.567	.11	99.93	.18	7.88	85.87	22.01	13,465	158	22,819	.937
20000—29999	127	3,117,779	1,884,951	.605	.630	.559	.04	99.97	.07	4.97	90.84	14.13	24,548	167	37,243	.974
30000 & Over	111	5,745,940	3,074,233	.535	.621	.535	.03	100%	.03	9.16	100%	9.16	51,765	184	51,765	.862
Total	340,505	62,714,774	38,962,577	.621	..	..	100%	..	..	100%	..	..	184	..	..	1.000
Five Size Groups																
Minimum Premium	95,331	1,820,188	1,128,915	.620	.620	.621	28.00	28.00	100%	2.90	2.90	100%	\$19	\$19	\$184	.998
0— 399	222,841	17,821,979	13,397,672	.752	.740	.621	65.44	93.44	72.00	28.42	31.32	97.10	80	62	248	1.211
400— 999	13,500	8,288,194	5,030,051	.607	.700	.567	3.96	97.40	6.56	13.21	44.53	68.68	614	84	1,929	.977
1000— 4999	7,338	14,898,672	8,287,803	.556	.650	.558	2.16	99.56	2.60	23.76	68.29	55.47	2,030	126	3,938	.895
5000 & Over	1,495	19,885,741	11,118,136	.559	.621	.559	.44	100%	.44	31.71	100%	31.71	13,301	184	13,301	.900
Total	340,505	62,714,774	38,962,577	.621	..	..	100%	..	..	100%	..	..	184	..	..	1.000

†Loss Ratio differentials are the loss ratios for the various size groups in the Individual Group column divided by the average loss ratio for all size groups combined.

*24 companies for policy year 1924 and 27 companies for policy year 1925.

TABLE 8
NEW YORK COMPENSATION EXPERIENCE BY SIZE OF RISK
 Policy Year 1924

Compiled by National Bureau 8/15/27

Experience of Mutual Companies and State Fund

All Industry Groups Combined

Premium Group	Number of Risks	Premium Earned	Losses Incurred	Loss Ratio			% of Total Risks			% of Total Premium			Avg. Premium Per Risk			Loss Ratio Differential*
				Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	
Minimum Premium	187	4,254	362	.085	.085	.630	.97	.97	100%	.05	.05	100%	\$23	\$23	\$444	.135
0— 24	7,486	155,849	191,619	1.230	1.199	.631	38.68	39.65	99.03	1.81	1.86	99.95	21	21	448	1.952
25— 49	738	27,534	6,378	.232	1.057	.620	3.81	43.46	60.35	.32	2.18	98.14	37	22	722	.368
50— 74	1,735	105,426	94,202	.894	.998	.621	8.96	52.42	56.54	1.23	3.41	97.82	61	29	768	1.419
75— 99	1,202	103,855	96,248	.927	.980	.617	6.21	58.63	47.58	1.21	4.62	96.59	86	35	902	1.471
100— 149	1,598	195,372	178,710	.915	.958	.613	8.26	66.89	41.37	2.27	6.89	95.38	122	46	1,024	1.452
150— 199	1,000	173,552	106,949	.616	.881	.606	5.17	72.06	33.11	2.02	8.91	93.11	174	55	1,249	.978
200— 299	1,271	312,021	225,208	.722	.835	.606	6.57	78.63	27.94	3.63	12.54	91.09	245	71	1,448	1.146
300— 399	729	251,434	157,733	.627	.795	.601	3.77	82.40	21.37	2.93	15.47	87.46	345	83	1,818	.995
400— 499	481	214,353	121,395	.566	.764	.600	2.49	84.89	17.60	2.49	17.96	84.53	446	94	2,133	.898
500— 999	1,227	863,509	644,090	.746	.757	.601	6.34	91.23	15.11	10.04	28.00	82.04	704	136	2,411	1.184
1000— 1999	833	1,169,699	698,408	.597	.705	.581	4.30	95.53	8.77	13.61	41.61	72.00	1,404	193	3,645	.948
2000— 2999	323	787,427	429,922	.546	.676	.577	1.67	97.20	4.47	9.16	50.77	58.39	2,438	232	5,802	.867
3000— 4999	247	947,796	580,014	.612	.665	.583	1.28	98.48	2.80	11.03	61.80	49.23	3,837	279	7,807	.971
5000— 9999	177	1,108,519	677,742	.611	.656	.575	.91	99.39	1.52	12.90	74.70	38.20	6,263	334	11,131	.970
10000—19999	87	1,181,820	706,514	.598	.647	.556	.45	99.84	.61	13.75	88.45	25.30	13,584	393	18,433	.949
20000—29999	22	526,432	247,681	.470	.635	.506	.11	99.95	.16	6.12	94.57	11.55	23,929	420	32,042	.746
30000 & Over	9	466,855	254,938	.546	.630	.546	.05	100%	.05	5.43	100%	5.43	51,873	444	51,873	.867
Total.....	19,352	8,595,707	5,418,113	.630	..	..	100%	..	..	100%	..	..	444	..	..	1.000
Five Size Groups																
Minimum Premium	187	4,254	362	.085	.085	.630	.97	.97	100%	.05	.05	100%	\$23	\$23	\$444	.135
0— 399	15,759	1,325,043	1,057,047	.798	.795	.631	81.43	82.40	99.03	15.42	15.47	99.95	84	83	448	1.267
400— 999	1,708	1,077,862	765,485	.710	.757	.600	8.83	91.23	17.60	12.54	28.01	84.53	631	136	2,133	1.127
1000— 4999	1,403	2,904,922	1,708,344	.588	.665	.581	7.25	98.48	8.77	33.79	61.80	71.99	2,071	279	3,645	.933
5000 & Over	295	3,283,626	1,886,875	.575	.630	.575	1.52	100%	1.52	38.20	100%	38.20	11,131	444	11,131	.913
Total.....	19,352	8,595,707	5,418,113	.630	..	..	100%	..	..	100%	..	..	444	..	..	1.000

*Loss Ratio differentials are the loss ratios for the various size groups in the Individual Group column divided by the average loss ratio for all size groups combined.

TABLE 9
NEW YORK COMPENSATION EXPERIENCE BY SIZE OF RISK
Policy Year 1925

Compiled by National Bureau 8/15/27

Experience of Mutual Companies and State Fund

All Industry Groups Combined

Premium Group	Number of Risks	Premium Earned	Losses Incurred	Loss Ratio			% of Total Risks			% of Total Premium			Avg. Premium Per Risk			Loss Ratio Differential*
				Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	
Minimum Premium	315	6,188	2,846	.460	.460	.571	1.25	1.25	100%	.04	.04	100%	\$20	\$20	\$572	.806
0— 24	6,372	91,147	65,663	.720	.704	.571	25.34	26.59	98.75	.63	.67	99.96	14	15	579	1.261
25— 49	3,082	110,030	94,304	.857	.785	.570	12.26	38.85	73.41	.77	1.44	99.33	36	21	774	1.501
50— 74	2,273	138,235	177,841	1.287	.986	.568	9.04	47.89	61.15	.96	2.40	98.56	61	29	922	2.254
75— 99	1,469	126,544	106,748	.844	.948	.561	5.84	53.73	52.11	.88	3.28	97.60	86	35	1,071	1.478
100— 149	2,078	242,712	196,824	.811	.901	.558	8.26	61.99	46.27	1.69	4.97	96.72	117	46	1,195	1.420
150— 199	1,439	249,302	156,360	.627	.830	.553	5.72	67.71	38.01	1.73	6.70	95.03	173	57	1,429	1.098
200— 299	1,668	412,262	228,542	.554	.748	.552	6.63	74.34	32.29	2.87	9.57	93.30	247	74	1,652	.970
300— 399	1,124	388,133	237,871	.613	.718	.552	4.47	78.81	25.66	2.70	12.27	90.43	345	89	2,015	1.074
400— 499	760	337,993	242,722	.718	.718	.550	3.02	81.83	21.19	2.35	14.62	87.73	445	102	2,367	1.257
500— 999	1,887	1,357,459	829,201	.611	.676	.546	7.50	89.33	18.17	9.44	24.06	85.38	719	154	2,687	1.070
1000— 1999	1,279	1,822,272	1,113,896	.611	.654	.537	5.09	94.42	10.67	12.67	36.73	75.94	1,425	222	4,072	1.070
2000— 2999	491	1,194,599	673,096	.563	.637	.523	1.95	96.37	5.58	8.31	45.04	63.27	2,433	267	6,485	.986
3000— 4999	412	1,610,153	845,917	.525	.615	.516	1.64	98.01	3.63	11.20	56.24	54.96	3,908	328	8,666	.919
5000— 9999	314	2,163,596	1,133,303	.524	.596	.514	1.25	99.26	1.99	15.05	71.29	43.76	6,890	411	12,586	.918
10000— 19999	124	1,773,139	977,774	.551	.589	.509	.49	99.75	.74	12.33	83.62	28.71	14,300	479	22,201	.965
20000— 29999	29	689,780	324,570	.471	.583	.477	.12	99.87	.25	4.79	88.41	16.38	23,786	506	38,005	.825
30000 & Over	33	1,666,538	800,059	.480	.571	.480	.13	100%	.13	11.59	100%	11.59	50,501	572	50,501	.841
Total	25,149	14,380,082	8,207,537	.571	..	..	100%	..	..	100%	..	..	572	..	..	1.000
Five Size Groups																
Minimum Premium	315	6,188	2,846	.460	.460	.571	1.25	1.25	100%	.04	.04	100%	\$20	\$20	\$572	.806
0— 399	19,505	1,758,365	1,264,153	.719	.718	.571	77.56	78.81	98.75	12.23	12.27	99.96	90	89	579	1.259
400— 999	2,647	1,695,452	1,071,923	.632	.676	.550	10.52	89.33	21.19	11.79	24.06	87.73	641	154	2,367	1.107
1000— 4999	2,182	4,627,024	2,632,909	.569	.615	.537	8.68	98.01	10.67	32.18	56.24	75.94	2,121	328	4,072	.996
5000 & Over	500	6,293,053	3,235,706	.514	.571	.514	1.99	100%	1.99	43.76	100%	43.76	12,586	572	12,586	.900
Total	25,149	14,380,082	8,207,537	.571	..	..	100%	..	..	100%	..	..	572	..	..	1.000

*Loss Ratio differentials are the loss ratios for the various size groups in the Individual Group column divided by the average loss ratio for all size groups combined.

TABLE 10

NEW YORK COMPENSATION EXPERIENCE BY SIZE OF RISK
Policy Years 1924 & 1925 Combined

Compiled by National Bureau 8/15/27

Experience of Mutual Companies and State Fund

All Industry Groups Combined

Premium Group	Number of Risks	Premium Earned	Losses Incurred	Loss Ratio			% of Total Risks			% of Total Premium			Avg. Premium Per Risk			Loss Ratio Differential*
				Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	
Minimum Premium	502	10,442	3,208	.307	.307	.593	1.13	1.13	100%	.05	.05	100%	\$21	\$21	\$516	.518
0— 24	13,858	246,996	257,282	1.042	1.012	.593	31.14	32.27	98.87	1.08	1.13	99.95	18	18	522	1.757
25— 49	3,820	137,564	100,682	.732	.914	.588	8.59	40.86	67.73	.60	1.73	98.87	36	22	754	1.234
50— 74	4,008	243,661	272,043	1.116	.991	.587	9.01	49.87	59.14	1.06	2.79	98.27	61	29	858	1.882
75— 99	2,671	230,399	202,996	.881	.962	.582	6.00	55.87	50.13	1.00	3.79	97.21	86	35	1,001	1.486
100— 149	3,676	438,084	375,534	.857	.927	.579	8.26	64.13	44.13	1.91	5.70	96.21	119	46	1,125	1.445
150— 199	2,439	422,854	263,309	.623	.853	.573	5.48	69.61	35.87	1.84	7.54	94.30	173	56	1,357	1.051
200— 299	2,939	724,283	453,750	.626	.786	.572	6.61	76.22	30.39	3.15	10.69	92.46	246	72	1,571	1.056
300— 399	1,853	639,567	395,604	.619	.751	.570	4.16	80.38	23.78	2.78	13.47	89.31	345	87	1,938	1.044
400— 499	1,241	552,346	364,117	.659	.737	.568	2.79	83.17	19.62	2.40	15.87	86.53	445	99	2,276	1.111
500— 999	3,114	2,220,968	1,473,291	.663	.709	.566	7.00	90.17	16.83	9.67	25.54	84.13	713	146	2,579	1.118
1000— 1999	2,112	2,991,971	1,812,304	.606	.674	.553	4.75	94.92	9.83	13.02	38.56	74.46	1,417	210	3,906	1.022
2000— 2999	814	1,982,026	1,103,018	.557	.653	.542	1.83	96.75	5.08	8.63	47.19	61.44	2,435	252	6,224	.939
3000— 4999	659	2,557,949	1,425,931	.557	.635	.540	1.48	98.23	3.25	11.13	58.32	52.81	3,882	307	8,346	.939
5000— 9999	491	3,272,115	1,811,045	.553	.619	.535	1.10	99.33	1.77	14.24	72.56	41.68	6,064	377	12,046	.933
10000—19999	211	2,954,959	1,684,288	.570	.611	.525	.47	99.80	.67	12.86	85.42	27.44	14,005	442	20,739	.961
20000—29999	51	1,216,212	572,251	.471	.603	.486	.11	99.91	.20	5.29	90.71	14.58	23,847	469	36,017	.794
30000 & Over	42	2,133,393	1,054,997	.495	.593	.495	.09	100%	.09	9.29	100%	9.29	50,795	516	50,795	.835
Total.....	44,501	22,975,789	13,625,650	.593	..	..	100%	..	..	100%	..	..	516	..	..	1.000
Five Size Groups																
Minimum Premium	502	10,442	3,208	.307	.307	.593	1.13	1.13	100%	.05	.05	100%	\$21	\$21	\$516	.518
0— 399	35,264	3,083,408	2,321,200	.753	.751	.593	79.24	80.37	98.87	13.42	13.47	99.95	87	87	522	1.270
400— 999	4,355	2,773,314	1,837,408	.663	.709	.568	9.79	90.16	19.63	12.07	25.54	86.53	637	146	2,276	1.118
1000— 4999	3,585	7,531,946	4,341,253	.576	.635	.553	8.05	98.21	9.84	32.78	58.32	74.46	2,101	307	3,906	.971
5000 & Over	795	9,576,679	5,122,581	.535	.593	.535	1.79	100%	1.79	41.68	100%	41.68	12,046	516	12,046	.902
Total.....	44,501	22,975,789	13,625,650	.593	..	..	100%	..	..	100%	..	..	516	..	..	1.000

*Loss Ratio differentials are the loss ratios for the various size groups in the Individual Group column divided by the average loss ratio for all size groups combined.

NEW YORK COMPENSATION EXPERIENCE BY SIZE OF RISK

Compiled by National Bureau 8/15/27

Policy Year 1924

Experience of Stock Companies, Mutuals and State Fund Combined

All Industry Groups Combined

Premium Group	Number of Risks	Premium Earned	Losses Incurred	Loss Ratio			% of Total Risks			% of Total Premium			Avg. Premium Per Risk			Loss Ratio Differential*
				Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	
Minimum Premium	43,496	801,759	590,931	.737	.737	.662	25.15	25.15	100%	2.32	2.32	100%	\$18	\$18	\$200	1.113
0— 24	31,608	559,255	550,267	.984	.838	.661	18.28	43.43	74.85	1.61	3.93	97.68	18	18	261	1.486
25— 49	28,336	1,041,103	959,773	.922	.875	.655	16.68	60.11	56.57	3.01	6.94	96.07	36	23	340	1.393
50— 74	16,802	1,030,835	848,914	.824	.859	.647	9.72	69.83	39.89	2.98	9.92	93.06	61	28	467	1.245
75— 99	10,208	882,429	740,179	.839	.855	.641	5.90	75.73	30.17	2.55	12.47	90.08	86	33	598	1.267
100— 149	11,572	1,409,245	1,176,549	.835	.850	.635	6.69	82.42	24.27	4.07	16.54	87.53	122	40	723	1.261
150— 199	6,445	1,118,428	819,824	.733	.831	.625	3.73	86.15	17.58	3.23	19.77	83.46	174	46	951	1.107
200— 299	7,187	1,756,807	1,305,608	.743	.813	.621	4.16	90.31	13.85	5.07	24.84	80.23	244	55	1,161	1.122
300— 399	3,935	1,364,767	931,246	.682	.795	.613	2.28	92.59	9.69	3.94	28.78	75.16	347	62	1,553	1.030
400— 499	2,396	1,066,961	708,932	.664	.783	.609	1.39	93.98	7.41	3.08	31.86	71.22	445	68	1,924	1.003
500— 999	4,984	3,504,218	2,340,777	.668	.755	.606	2.88	96.86	6.02	10.12	41.98	68.14	703	87	2,263	1.009
1000— 1999	2,775	3,867,954	2,338,811	.605	.723	.596	1.60	98.46	3.14	11.17	53.15	58.02	1,394	108	3,691	.914
2000— 2999	1,013	2,460,291	1,548,646	.629	.712	.593	.58	99.04	1.54	7.10	60.25	46.85	2,429	122	6,079	.950
3000— 4999	756	2,897,073	1,692,206	.584	.697	.587	.44	99.48	.96	8.36	68.61	39.75	3,832	138	8,311	.882
5000— 9999	549	3,585,409	2,116,481	.590	.683	.588	.32	99.80	.52	10.35	78.96	31.39	6,531	158	12,069	.891
10000— 19999	233	3,148,358	1,968,973	.625	.677	.586	.13	99.93	.20	9.09	88.05	21.04	13,512	176	20,708	.944
20000— 29999	73	1,788,551	981,865	.549	.670	.557	.04	99.97	.07	5.16	93.21	11.95	24,501	187	34,796	.829
30000 & Over	46	2,352,185	1,324,138	.563	.662	.563	.03	100%	.03	6.79	100%	6.79	51,134	200	51,134	.850
Total	172,914	34,635,628	22,944,120	.662	..	..	100%	..	..	100%	..	..	200	..	..	1.000
Five Size Groups																
Minimum Premium	43,496	801,759	590,931	.737	.737	.662	25.15	25.15	100%	2.32	2.32	100%	\$18	\$18	\$200	1.113
0— 399	116,593	9,162,369	7,332,360	.800	.795	.661	67.44	92.59	74.85	26.46	28.78	97.68	79	62	261	1.208
400— 999	7,380	4,571,179	3,049,709	.667	.755	.609	4.27	96.86	7.41	13.20	41.98	71.22	619	87	1,924	1.008
1000— 4999	4,544	9,225,318	5,579,663	.605	.697	.596	2.62	99.48	3.14	26.63	68.61	58.02	2,030	138	3,691	.914
5000 & Over	901	10,874,503	6,391,457	.588	.662	.588	.52	100%	.52	31.39	100%	31.39	12,069	200	12,069	.888
Total	172,914	34,635,628	22,944,120	.662	..	..	100%	..	..	100%	..	..	200	..	..	1.000

*Loss Ratio differentials are the loss ratios for the various size groups in the Individual Group column divided by the average loss ratio for all size groups combined.

TABLE 12
NEW YORK COMPENSATION EXPERIENCE BY SIZE OF RISK
Policy Year 1925

Compiled by National Bureau 8/15/27
Experience of Stock Companies, Mutuals and State Fund Combined

All Industry Groups Combined

Premium Group	Number of Risks	Premium Earned	Losses Incurred	Loss Ratio			% of Total Risks			% of Total Premium			Avg. Premium Per Risk			Loss Ratio Differential*
				Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	
Minimum Premium	52,337	1,028,871	541,192	.526	.526	.581	24.68	24.68	100%	2.01	2.01	100%	\$20	\$20	\$241	.905
0— 24	33,382	541,526	487,127	.900	.655	.582	15.74	40.42	75.32	1.06	3.07	97.99	16	18	313	1.549
25— 49	35,813	1,284,130	1,129,060	.879	.756	.578	16.89	57.31	59.58	2.51	5.58	96.93	36	23	392	1.513
50— 74	20,675	1,259,077	957,265	.760	.757	.570	9.75	67.06	42.69	2.47	8.05	94.42	61	29	532	1.308
75— 99	12,766	1,100,727	845,864	.768	.760	.565	6.02	73.08	32.94	2.16	10.21	91.95	86	34	672	1.322
100— 149	15,318	1,858,153	1,375,334	.740	.754	.560	7.22	80.30	26.92	3.64	13.85	89.79	121	42	803	1.274
150— 199	8,510	1,469,662	972,569	.662	.739	.553	4.01	84.31	19.70	2.88	16.73	86.15	173	48	1,052	1.139
200— 299	9,598	2,345,661	1,464,714	.624	.714	.549	4.53	88.84	15.69	4.59	21.32	83.27	244	58	1,277	1.074
300— 399	5,450	1,883,582	1,154,579	.613	.699	.544	2.57	91.41	11.16	3.69	25.01	78.68	346	66	1,695	1.055
400— 499	3,318	1,484,091	963,039	.649	.694	.541	1.56	92.97	8.59	2.91	27.92	74.99	447	72	2,099	1.117
500— 999	7,157	5,006,238	2,854,711	.570	.662	.537	3.37	96.34	7.03	9.80	37.72	72.08	699	94	2,466	.981
1000— 1999	3,841	5,434,734	2,967,642	.546	.636	.532	1.81	98.15	3.66	10.64	48.36	62.28	1,415	119	4,093	.940
2000— 2999	1,396	3,380,196	1,860,998	.551	.626	.529	.66	98.81	1.85	6.62	54.98	51.64	2,421	134	6,712	.948
3000— 4999	1,142	4,390,370	2,220,753	.506	.610	.525	.54	99.35	1.19	8.60	63.58	45.02	3,844	154	9,079	.871
5000— 9999	832	5,767,212	2,979,053	.517	.596	.530	.39	99.74	.65	11.30	74.88	36.42	6,932	181	13,382	.890
10000—19999	345	4,748,117	2,589,778	.545	.590	.536	.16	99.90	.26	9.30	84.18	25.12	13,763	203	23,017	.938
20000—29999	105	2,545,440	1,475,337	.580	.590	.530	.05	99.95	.10	4.99	89.17	15.82	24,242	215	38,078	.998
30000 & Over	107	5,527,148	2,805,092	.508	.581	.508	.05	100%	.05	10.83	100%	10.83	51,656	241	51,656	.874
Total	212,092	51,054,935	29,644,107	.581	..	..	100%	..	..	100%	..	..	241	..	..	1.000
Five Size Groups																
Minimum Premium	52,337	1,028,871	541,192	.526	.526	.581	24.68	24.68	100%	2.01	2.01	100%	\$ 20	\$20	\$241	.905
0— 399	141,512	11,742,518	8,386,512	.714	.699	.582	66.72	91.40	75.32	23.00	25.01	97.99	83	66	313	1.229
400— 999	10,475	6,490,329	3,817,750	.588	.662	.541	4.94	96.34	8.60	12.71	37.72	74.99	620	94	2,099	1.012
1000— 4999	6,379	13,205,300	7,049,393	.534	.610	.532	3.01	99.35	3.66	25.87	63.59	62.28	2,070	154	4,093	.919
5000 & Over	1,389	18,587,917	9,849,260	.530	.581	.530	.65	100%	.65	36.41	100%	36.41	13,382	241	13,382	.912
Total	212,092	51,054,935	29,644,107	.581	..	..	100%	..	..	100%	..	..	241	..	..	1.000

*Loss Ratio differentials are the loss ratios for the various size groups in the Individual Group column divided by the average loss ratio for all size groups

NEW YORK COMPENSATION EXPERIENCE BY SIZE OF RISK

Compiled by National Bureau 8/15/27

Policy Years 1924 & 1925 Combined

Experience of Stock Companies, Mutuals and State Fund Combined

All Industry Groups Combined

Premium Group	Number of Risks	Premium Earned	Losses Incurred	Loss Ratio			% of Total Risks			% of Total Premium			Avg. Premium Per Risk			Loss Ratio Differential*
				Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	Individual Group	Cumulated Down	Cumulated Up	
Minimum Premium	95,833	1,830,630	1,132,123	.618	.618	.614	24.89	24.89	100%	2.14	2.14	100%	\$19	\$19	\$223	1.007
0— 24	64,990	1,100,781	1,037,394	.942	.740	.614	16.88	41.77	75.11	1.28	3.42	97.86	17	18	290	1.534
25— 49	64,649	2,325,233	2,088,833	.898	.810	.609	16.79	58.56	58.23	2.71	6.13	96.58	36	23	369	1.463
50— 74	37,477	2,289,912	1,806,179	.789	.804	.601	9.73	68.29	41.44	2.67	8.80	93.87	61	29	504	1.285
75— 99	22,974	1,983,156	1,586,043	.800	.803	.595	5.97	74.26	31.71	2.31	11.11	91.20	86	33	640	1.303
100— 149	26,890	3,267,398	2,551,883	.781	.797	.590	6.98	81.24	25.74	3.81	14.92	88.89	122	41	769	1.272
150— 199	14,955	2,588,090	1,792,393	.693	.780	.581	3.88	85.12	18.76	3.02	17.94	85.08	173	47	1,010	1.129
200— 299	16,785	4,102,468	2,770,322	.675	.758	.577	4.36	89.48	14.88	4.79	22.73	82.06	244	57	1,228	1.099
300— 399	9,385	3,248,349	2,085,825	.642	.741	.571	2.44	91.92	10.52	3.79	26.52	77.27	346	64	1,637	1.046
400— 499	5,714	2,551,052	1,671,971	.655	.733	.568	1.49	93.41	8.08	2.98	29.50	73.48	446	70	2,026	1.067
500— 999	12,141	8,510,456	5,195,488	.610	.702	.564	3.15	96.56	6.59	9.93	39.43	70.50	701	91	2,382	.993
1000— 1999	6,616	9,302,688	5,306,453	.570	.673	.556	1.72	98.28	3.44	10.86	50.29	60.57	1,406	114	3,927	.928
2000— 2999	2,409	5,840,487	3,409,644	.584	.663	.553	.63	98.91	1.72	6.82	57.11	49.71	2,424	129	6,456	.951
3000— 4999	1,898	7,287,443	3,912,959	.537	.646	.548	.49	99.40	1.09	8.50	65.61	42.89	3,840	147	8,775	.875
5000— 9999	1,381	9,352,621	5,095,534	.545	.632	.551	.36	99.76	.60	10.91	76.52	34.39	6,772	171	12,866	.888
10000—19999	578	7,896,475	4,558,751	.577	.626	.554	.15	99.91	.24	9.22	85.74	23.48	13,662	191	22,123	.940
20000—29999	178	4,333,991	2,457,202	.567	.623	.539	.05	99.96	.09	5.06	90.80	14.26	24,348	202	36,898	.923
30000 & Over	153	7,879,333	4,129,230	.524	.614	.524	.04	100%	.04	9.20	100%	9.20	51,499	223	51,499	.853
Total	385,006	85,690,563	52,588,227	.614	..	..	100%	..	..	100%	..	..	223	..	..	1.000
Five Size Groups																
Minimum Premium	95,833	1,830,630	1,132,123	.618	.618	.614	24.89	24.89	100%	2.14	2.14	100%	\$19	\$19	\$223	1.007
0— 399	258,105	20,905,387	15,718,872	.752	.741	.614	67.04	91.93	75.11	24.39	26.53	97.86	81	64	290	1.225
400— 999	17,855	11,061,508	6,867,459	.621	.702	.568	4.64	96.57	8.07	12.91	39.44	73.47	620	91	2,026	1.011
1000— 4999	10,923	22,430,618	12,629,056	.563	.646	.556	2.84	99.41	3.43	26.18	65.62	60.56	2,054	147	3,927	.917
5000 & Over	2,290	29,462,420	16,240,717	.551	.614	.551	.59	100%	.59	34.38	100%	34.38	12,866	223	12,866	.897
Total	385,006	85,690,563	52,588,227	.614	..	..	100%	..	..	100%	..	..	223	..	..	1.000

*Loss Ratio differentials are the loss ratios for the various size groups in the Individual Group column divided by the average loss ratio for all size groups combined.

TABLE 14
NEW YORK COMPENSATION EXPERIENCE BY SIZE OF RISK
 Policy Years 1924 and 1925 Combined

Compiled by National Bureau 8/15/27

By Industry Groups

Premium Groups & Industry Groups	Stock Companies (27 Companies)					Mutual Companies (11 Companies)*					All Carriers				
	No. of Risks	Premium Earned	Losses Incurred	Loss Ratio	L. R. Diff.	No. of Risks	Premium Earned	Losses Incurred	Loss Ratio	L. R. Diff.	No. of Risks	Premium Earned	Losses Incurred	Loss Ratio	L. R. Diff.
Manufacturing															
Minimum Premium	14,481	235,892	134,450	.570	.922	152	2,663	790	.270	.528	14,633	238,555	135,170	.567	.976
0—399	57,822	4,465,561	3,418,526	.766	1.239	5,214	806,833	332,026	.547	1.070	63,036	5,072,394	3,750,552	.739	1.272
400—999	3,705	2,329,328	1,360,475	.584	.945	1,140	741,047	378,905	.511	1.000	4,845	3,070,375	1,739,380	.567	.976
1000—4999	2,446	5,039,522	2,798,739	.550	.890	1,394	3,174,492	1,632,553	.514	1.006	3,840	8,264,014	4,431,292	.536	.923
5000 & Over	493	6,245,697	3,629,213	.581	.940	432	4,899,394	2,469,676	.504	.986	925	11,145,091	6,098,889	.547	.941
Total	78,947	18,366,000	11,341,403	.618	1.000	8,332	9,424,429	4,813,880	.511	1.000	87,279	27,790,429	16,155,283	.581	1.000
Contracting															
Minimum Premium	12,835	413,536	360,641	.872	1.369	70	2,039	1,694	.831	1.818	12,705	415,575	362,335	.872	1.413
0—399	47,916	4,876,592	4,238,477	.869	1.364	1,155	158,208	80,354	.508	1.112	49,071	5,034,800	4,318,831	.858	1.391
400—999	4,410	2,677,688	1,724,102	.644	1.011	342	232,330	126,041	.543	1.183	4,758	2,910,018	1,850,143	.636	1.031
1000—4999	2,349	4,823,787	2,700,025	.560	.879	349	770,865	395,367	.513	1.123	2,698	5,594,652	3,089,392	.553	.896
5000 & Over	562	7,606,494	3,969,773	.522	.819	95	1,340,474	541,632	.404	.884	657	8,946,968	4,511,405	.504	.817
Total	67,878	20,398,097	12,993,018	.637	1.000	2,011	2,503,916	1,145,088	.457	1.000	69,889	22,902,013	14,138,106	.617	1.000
Commercial															
Minimum Premium	18,143	276,289	204,600	.741	1.231	135	3,764	466	.124	.232	18,278	280,053	205,066	.732	1.228
0—399	51,743	3,788,814	2,390,513	.631	1.048	1,848	236,204	137,901	.584	1.092	53,591	4,025,018	2,528,414	.628	1.054
400—999	2,163	1,307,374	696,843	.533	.885	345	213,287	129,014	.605	1.131	2,508	1,520,661	825,857	.543	.911
1000—4999	884	1,642,982	942,309	.574	.953	169	305,058	146,964	.482	.901	1,053	1,948,040	1,089,273	.559	.938
5000 & Over	118	1,448,430	864,065	.597	.992	14	124,949	58,638	.469	.877	132	1,573,379	922,703	.586	.983
Total	73,051	8,463,889	5,098,330	.602	1.000	2,511	883,262	472,983	.535	1.000	75,562	9,347,151	5,571,313	.596	1.000
All Other															
Minimum Premium	50,072	894,471	429,224	.480	.780	138	1,846	328	.178	.352	50,210	896,317	429,552	.479	.790
0—399	65,360	4,691,012	3,350,156	.714	1.161	1,692	139,893	77,409	.553	1.095	67,052	4,830,905	3,427,565	.710	1.172
400—999	3,216	1,978,804	1,248,631	.633	1.029	213	140,501	82,712	.589	1.166	3,429	2,114,305	1,331,343	.630	1.040
1000—4999	1,659	3,342,381	1,846,730	.553	.899	158	331,078	152,230	.460	.911	1,817	3,673,459	1,998,960	.544	.898
5000 & Over	322	4,685,120	2,655,085	.579	.941	34	766,357	384,697	.502	.994	356	5,351,477	3,039,782	.568	.937
Total	120,629	15,486,788	9,529,826	.615	1.000	2,235	1,379,675	697,376	.505	1.000	122,864	16,866,463	10,227,202	.608	1.000
All Industries															
Minimum Premium	95,331	1,820,188	1,128,915	.620	.998	495	10,312	3,208	.311	.620	95,826	1,830,500	1,132,123	.618	1.032
0—399	222,841	17,821,979	13,397,672	.752	1.211	9,909	1,141,138	627,690	.550	1.096	232,750	18,963,117	14,025,362	.740	1.235
400—999	13,500	8,288,194	5,030,051	.607	.977	2,040	1,327,165	716,672	.540	1.076	15,540	9,615,359	5,746,723	.598	.998
1000—4999	7,338	14,898,672	8,287,803	.556	.895	2,070	4,581,493	2,327,114	.508	1.012	9,408	19,480,165	10,614,917	.545	.910
5000 & Over	1,495	19,885,741	11,118,136	.559	.900	575	7,131,174	3,454,643	.484	.964	2,070	27,016,915	14,572,779	.539	.900
Total	340,505	62,714,774	38,962,577	.621	1.000	15,089	14,191,282	7,129,327	.502	1.000	355,594	78,906,056	46,091,904	.599	1.000

*The experience of Mutuals by industry groups is based on the first compilation made by the New York Board. The State Fund did not report the experience by industry groups.

TABLE 15
LOSS RATIOS BY SIZE OF RISK AND INDUSTRY GROUPS
New York State—Policy Years 1924 and 1925—All Companies Combined

Industry Groups	Size of Risk	No. of Risks	Earned Premium	Incurred Losses	Loss Ratios
Manufacturing.....	Under \$150	59,526	\$ 2,858,252	\$ 2,134,225	74.7%
	150—399	9,806	2,389,780	1,698,023	71.1
	Under 400	69,332	5,248,032	3,832,248	73.0
	400 and Over	9,737	23,102,044	12,454,865	53.9
	Total	79,069	28,350,076	16,287,113	57.4
Contracting.....	Under 150	49,132	2,762,986	2,705,846	97.9
	150—399	10,728	2,610,318	1,881,462	72.1
	Under 400	59,860	5,373,304	4,587,308	85.4
	400 and Over	8,080	17,497,465	9,545,853	54.6
	Total	67,940	22,870,769	14,133,161	61.8
All Other.....	Under 150	162,671	6,416,332	4,413,571	68.8
	150—399	16,202	3,833,317	2,284,501	59.6
	Under 400	178,873	10,249,649	6,698,072	65.3
	400 and Over	9,267	17,386,459	9,873,029	56.8
	Total	188,140	27,636,108	16,571,101	60.0
Total.....	Under 150	271,329	12,037,570	9,253,642	76.9
	150—399	36,736	8,833,415	5,863,986	66.4
	Under 400	308,065	20,870,985	15,117,628	72.4
	400 and Over	27,084	57,985,968	31,873,747	55.0
	Total	335,149	78,856,953	46,991,375	59.6

TABLE 16
LOSS CONSTANTS NECESSARY TO EQUALIZE LOSS RATIOS UNDER AND OVER \$400
 Based on New York State Experience for Policy Year 1924 and 1925 by Size of Risk and Industry
 All Companies Combined—Premium Shown in Thousands Only

Size Group	Premiums			(4) L. R.	Manual Premiums			(8) Add'l Premium from M. P. of 15 x R	(9) Premium to be derived from fees (6)-(7)-(8)	(10) Realized Premium †	(11) Realized L. R.	(12) Amt. of	(13) Change in Man. Rates (7e) + (3e)
	(1) Actual	(2) 1924-5 Manual Level *	(3) Future Manual Level †		(5) Adj. so L. R. over 400 equals Total Col. (4)	(6) Under 400 adj. so L. R. equals Total Col. (4)	(7) Adj. for Expected Off-balance						
Manufacturing					(3) x .936	(5) x 1.386	(5) x 1.021	Manufacturing	(7d) x .979				
(a) 0-149	2,858	x x	2,968	71.9	2,778	3,851	2,837	(a) 174	840	4,458	47.9	24.32	
(b) 150-399	2,390	x x	2,476	68.6	2,318	3,212	2,366	(b) x x	846	2,605	65.2	24.32	
(c) 0-399	5,248	x x	5,444	70.4	5,096	7,063	5,203	(c) 174	1,686	7,003	54.3	24.32	
(d) 400 & Over	23,102	23,739	24,524	50.8	22,954	x x	23,436	(d) x x	x x	22,944	54.3	x x	
(e) Total.....	28,350	28,987	29,968	54.3	28,050	x x	28,639	(e) x x	x x	30,007	54.3	x x	.956
Contracting					(3) x .867	(5) x 1.697	(5) x 1.051	Contracting	(7d) x .952				
(a) 0-149	2,763	x x	2,930	92.4	2,540	4,310	2,669	(a) 561	1,080	5,387	50.2	43.90	
(b) 150-399	2,610	x x	2,763	68.1	2,396	4,066	2,518	(b) x x	1,548	2,989	62.9	43.90	
(c) 0-399	5,373	x x	5,693	80.6	4,936	8,376	5,187	(c) 561	2,628	8,376	54.8	43.90	
(d) 400 & Over	17,498	19,085	20,078	47.5	17,407	x x	18,295	(d) x x	x x	17,417	54.8	x x	
(e) Total.....	22,871	24,458	25,771	54.8	22,343	x x	23,482	(e) x x	x x	25,793	54.8	x x	.911
All Other.....					(3) x .922	(5) x 1.237	(5) x 1.079	All Other	(7d) x .927				
(a) 0-149	6,417	x x	6,977	63.2	6,433	7,957	6,941	(a) 908	103	8,498	51.9	3.99	
(b) 150-399	3,833	x x	4,161	54.9	3,836	4,746	4,140	(b) x x	606	4,204	54.3	3.99	
(c) 0-399	10,250	x x	11,138	60.1	10,269	12,703	11,081	(c) 908	714	12,702	52.7	3.99	
(d) 400 & Over	17,386	18,761	20,329	48.6	18,743	x x	20,224	(d) x x	x x	18,748	52.7	x x	
(e) Total.....	27,636	29,011	31,467	52.7	29,012	x x	31,305	(e) x x	x x	31,450	52.7	x x	.995
Total								Total					
(a) 0-149	12,038	x x	12,875	71.9	11,751	16,118	12,447	(a) 1,643	2,028	18,343	50.4	16.32	
(b) 150-399	8,833	x x	9,400	62.4	8,550	12,024	9,204	(b) x x	3,000	9,798	59.8	16.32	
(c) 0-399	20,871	x x	22,275	67.9	20,301	28,142	21,471	(c) 1,643	5,028	28,141	53.7	16.32	
(d) 400 & Over	57,986	61,584	64,931	49.1	59,104	x x	61,955	(d) x x	x x	59,109	53.9	x x	
(e) Total.....	78,857	82,455	87,206	53.9	79,405	x x	83,426	(e) x x	x x	87,250	53.9	x x	.957

Note: All premiums are shown in Thousands of Dollars.

	1924	1925		1924	1925	
*Factors: (Divisors)			†Factors: (Multipliers)			‡(7a) + (8) + (12) × No. of Risks.
Mfg.....	.969	.976	Mfg.....	1.079	1.002	(7b) + (12) × No. of Risks.
Cont.....	.925	.912	A. O.....	1.128	1.007	(7d) × Off-balance.
	.925	.911		1.142	1.044	