THE 1965 STUDY OF EXPENSES BY SIZE OF RISK

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INTRODUCTION

This report is a chronological presentation of the steps taken from the time of the first indication that a study of expenses was in the offing until, three years later, the deliberations of no less than six committees culminated in a complete revision of the expense provision used in workmen's compensation ratemaking.

By so chronicling these actions and interspersing an explanation or opinion, where necessary, for a more complete picture, a coherent description of the expense study by size of risk is made available in a single, most accessible source. To complete the presentation, without impeding unnecessarily the flow of the narrative, those documents which contain the most important details of the study are provided in the Appendix.

BACKGROUND

In 1949 a study of expenses by size of risk was undertaken by the insurance industry, at the behest of the National Association of Insurance Commissioners, to obtain information against which the existing graduation of expenses, applicable to workmen's compensation, could be measured. The background and details of this study are ably described by M. H. McConnell in "The Expense Study By Size of Risk" published in Volume XXXIX of the *Proceedings* of the Casualty Actuarial Society. Notable results of this earlier study include, in workmen's compensation, the introduction of the Three-Year Fixed Rate Program and the wider acceptance of expense constants.

In 1961, and again in 1962, in approving workmen's compensation rate revisions, the New York Insurance Department commented on the need for another study of expenses by size of risk. In letters from the Superintendent of Insurance to the general manager of the New York Compensation Insurance Rating Board, approving these two rate revisions, the following statements were made:

> "While some recognition has been given to reduced costs, this is an area which should be given further study. Further research into the expense problem, along with the continuing study of the ratemaking process is expected of the Compensation Insurance Rating Board."

> "We believe it is necessary that the Board formulate and submit in

the coming months a new program which will reexamine Workmen's Compensation expenses as they appear in the ratemaking process."

The Rates Committee of the New York Compensation Insurance Rating Board, recognizing that expenses are countrywide in scope and application, adopted a resolution, on June 22, 1962, recommending, to the "appropriate rating organizations," that steps be taken to implement a study of expenses by size of risk. The National Council on Compensation Insurance accepted this assignment, expanded its Special Committee on Ratemaking from six to ten members for purposes of this study, and (several months thereafter) unobtrusively began referring to this group as the Committee to Study Expenses by Size of Risk. The National Council's agreement to undertake such a study of expenses was duly reported to the National Association of Insurance Commissioners in a letter from the general manager to the chairman of the Fire, Marine, Casualty and Surety Committee, dated December 4, 1962, and identified as Exhibit A in the Appendix which follows.

Shortly after this report of the National Council was accepted at the December 1962 NAIC meeting, a Subcommittee of Technicians was appointed to represent the Commissioners for this study. On formation, this subcommittee was chaired by New York and included representatives from Connecticut, Florida, Massachusetts, Minnesota and Texas.

PRELIMINARY MEETINGS

On January 29, 1963, this recently appointed F-3 Subcommittee of the Fire, Marine, Casualty and Surety Committee of the National Association of Insurance Commissioners met with the National Council Committee to Study Expenses by Size of Risk. At this meeting the industry representatives were asked to prepare a statement on the scope of the proposed study. On April 1, 1963, such a statement was sent to the New York Insurance Department with the following points optimistically expressed:

1. The study will include workmen's compensation, automobile liability, and general liability. (The lines of insurance other than workmen's compensation had been added voluntarily by the National Bureau of Casualty Underwriters and the Mutual Insurance Advisory Association.)

2. All members of the National Council with compensation writings in excess of $5,000,000 will be requested to participate in the study. Companies may submit data on a "group" basis.

3. Commissions, loss adjustment expense, and investment expense will be excluded.
4. For workmen's compensation, companies may use their countrywide distribution of premiums by size of risk which was prepared for the National Council 1962 study.
5. Paid expenses, rather than incurred, will be studied.

There then followed a two-page extract from the 1949 study of expenses by size of risk outlining proposed methods of allocating and distributing various types of expenses. Two notes were appended to justify the conclusion that loss adjustment expense and commissions should be excluded.

This industry statement led to questions by the NAIC representatives which were discussed at another joint meeting on May 23, 1963. This meeting resulted in an expanded industry presentation, dated June 11, 1963 (Exhibit B), designed to resolve the lingering doubts in the minds of the F-3 members. Painstaking effort was expended in trying to convince the NAIC subcommittee, through this industry statement, that commissions should not be included in the study of expenses by size of risk. The main thrust of the arguments centered around the budgetary nature of the provision for acquisition costs in ratemaking. When the F-3 group met in Seattle on June 18, representatives of the National Association of Insurance Agents, the National Association of Insurance Brokers, and the National Association of Casualty and Surety Agents made personal appearances to urge the exclusion of commissions from the forthcoming study. These efforts proved fruitless, however, when the parent Fire, Marine, Casualty and Surety Committee, with two of fourteen representatives dissenting, accepted its subcommittee's report which insisted that commissions be studied.

It is reasonable to conclude that the Barrett-Russo controversy which had been raging in New York played a part in the subcommittee's intransigence in this matter of commissions. The Barrett-Russo legislation, it will be recalled, amended the New York Insurance Law in such a way that the most recent year's paid commissions for New York business would be considered in ratemaking. This requirement effectively quashed the budgetary approach to production costs. Sponsored by agents' associations in an attempt to prevent unilateral commission reductions by the companies, this legislation became effective on April 30, 1960, was renewed annually thereafter until April 1, 1963 when the Senate Insurance Committee failed to send the renewal bill to the full Senate for action. Although the legislation itself was no longer in effect when the NAIC met in June 1963, the memory of the debate over this fundamental concept certainly endured.

PREPARATION OF THE CALL

At any rate, the industry committee reluctantly agreed to include total acquisition cost by size of risk and proceeded to prepare the call. Late in March 1964, the instructions for reporting workmen's compensation data were submitted to the F-3 Chairman while the remaining details for general liability and automobile liability were still being deliberated in committee. Meanwhile, the F-3 Chairman raised several questions on the conduct of the study. In trying to answer one of these questions, concerning the recognition of individual risk expense modifications, the Rating Program Committee of the National Bureau of Casualty Underwriters came to the conclusion than an expense study by size of risk for the liability lines in this period of intense competition would be an exercise in futility. To be of any value, a study of expenses must relate to standard premium, but the difficulty of determining such premium, risk-by-risk, because of the widespread use of expense modification and schedule rating plans, was considered disproportionate to the – at best – questionable value of any such study. This conclusion was transmitted to the NAIC subcommittee which agreed that complexities deriving from the inclusion of the third party lines should not delay the vital study on workmen's compensation.

At an April 21, 1964 meeting of the Committee to Study Expenses by Size of Risk with representatives of the NAIC subcommittee, convened to discuss the procedural questions raised by the Subcommittee of Technicians, it was agreed that a single report of expenses by size of risk from a group of companies would be acceptable even though the members of the group might operate on a different basis. While such a provision had been included by industry from the start, the concern, at this late date, was the expanding area of participating business by members of company groups traditionally referred to as non-participating. As a practical matter, however, since certain of such groups file a single Insurance Expense Exhibit and the total of the expenses to be reported by size was to come directly from the Insurance Expense Exhibit, any dissection of a group Expense Exhibit would have been undertaken retrospectively and would possess doubtful validity.

Finally, it was agreed that compliance with the F-3 Subcommitee's request for completion of the study in advance of the December 1964 NAIC meeting would be impossible. Further, the expense of processing the significant block of policies effective in January 1965 could be included in the sampling study if a December deadline were foregone. In order, however, to present results to the NAIC in June of 1965, it was necessary to use the figures reported in the 1963 Insurance Expense Exhibit since the 1964 Exhibit was not due until May 1, 1965.

With all parties thus in agreement on the general procedures to be followed, the National Council, on July 2, 1964, sent to all members and subscribers the call to obtain expense data by size of risk (Exhibit C).

COMPILATION OF RESULTS

When all the results of the companies' studies were compiled by the National Council, it developed that 15 stock companies or groups of companies and a like number of non-stock carriers had responded to the call. The total direct standard earned premium for these 30 entities amounted to $1.2 billion for 1963. This figure represents almost 80% of the industry total for that year. To the NAIC subcommittee's remark of April 28, 1965 that this study was a painstaking and expensive cost accounting review, everyone who took part in the study would readily agree.

With the aggregate figures available, the special Committee to Study Expenses by Size of Risk reassembled and, in two meetings (April 14 and June 3, 1965) with the aid of a subcommittee, prepared a report which was later submitted to the Subcommittee of Technicians. This industry report (Exhibit D) was intended simply to analyze the results of the study; it did not recommend any specific application of these results. The report was meant to pave the way for what might ultimately be proposed in the way of a revised expense program.

Among the more important points included in this preliminary industry report was a reminder that the purpose of the expense study by size of risk was to compare the reported graduation of expenses with that underlying the rating system. Implicit in this comment was the conviction – apparently not shared by the Technicians – that the total expenses reported in this study, those for calendar year 1963, were not to be used – unaltered – to establish expense requirements for ratemaking. The NAIC subcommitee, on the other hand, in its preliminary report submitted at the June 1965 meeting, suggested a specific program of expense provisions, premium discounts, and expense constants and pointed out that this program produced figures which would balance to the 1963 Insurance Expense Exhibit data of the non-stock companies which participated in the study.

Also included in the industry's preliminary report was a reaffirmation of the companies' belief that the total production costs reported by size of risk were of no practical significance because of the contractual relationship existing between agent and company. The Technicians' report indicated that they had reached the same conclusion. On this topic, their report said:

> "It was the . . . sense of the members that although the figures furnished for total production cost disclose historically applicable relative production cost by premium size, nevertheless production cost is affected by contractual agreements which are subject to individual negotiation; for this reason the Subcommittee believes it inappropriate to base absolute conclusions on such a volatile element of expense."

Finally, the industry report suggested that expense constants might be increased and the Three-Year Fixed Rate Program expanded because it produced such marked savings in expenses.

By the time the subcommittee met at the June 1965 NAIC convention and accepted the National Council presentation of the report prepared by the special Committee to Study Expenses by Size of Risk, the industry had recovered from its inadvertent omission, in said report, of any reference to transfer items, and the general manager of the National Council submitted, on that occasion, a supplementary statement repeating the traditional position of the companies that these expenses must be restored to their proper categories for ratemaking purposes.

TRANSFER

This entire transfer question is important enough to warrant a brief digression at this point. As early as June, 1948, when the Uniform Accounting Regulations were first promulgated, this matter of the definition of acquisition, field supervision, and collection expenses was debated. According to D. M. Pruitt's paper, "Uniform Accounting – A Study of Regulation," in Volume XXXVI of the *Proceedings* of the Casualty Actuarial Society, the inclusion in this expense group of such items as policywriting and collection was defended by the New York Insurance Department.* Its aim was to have this expense category embrace all those functions exclusively performed by the general agent, regardless of where or by whom performed, since, on business written by a general agent, such functions are automatically covered by the acquisition expense. Also, this Uniform

* A list of items transferred under Uniform Accounting will be found in Addendum B of Exhibit C in Appendix.

Accounting regulation was to apply to all types of companies, whatever their method of operation, so that, if policywriting were included, perforce, on general agents' business, policywriting must also be included even where little or no commission is paid.

Now, if the Insurance Expense Exhibit were solely an accounting document, there would be little cause for controversy but, because of the use to which these Expense Exhibit figures have been put, over the years, in developing the expense portion of the rates for the various lines of insurance, a more precise functional definition is required. Further, since the traditional concept of a general agency has largely been replaced by branch offices, staffed by company personnel, without (necessarily) reducing the commission paid, it is essential that these operations which may, in days gone by, have been performed by independent agents, be included with company expenses. The only way to guarantee such proper recognition of these incurred company expenses is to include them with general expense since total production cost, for ratemaking purposes, is a budgetary item; that is, the amount included in the rates for this cost is intended to reflect that which is provided in the various contracts entered into between the companies and the independent agents. Since this amount of commission to be paid is subject to change at any time – because it is contractual – the stock companies have steadfastly maintained that incurred commission figures on previously written policies are not necessarily a true indication of the amount to be paid in the future.

There should be no fear that the provision in rates for production cost might be overstated due to this non-recognition of previously incurred commission expense. Today's knowledgeable agent exerts a most effective check against such a possibility. Furthermore, if such expenses as those incurred in connection with advertising were included as a part of production costs, for ratemaking, it would be extremely difficult to convince an agent that the provision for production cost in the rates should exceed the maximum rate of commission ever to be paid an agent.

If agreement could be reached on the contention that even a flawless accounting document does not necessarily provide the ideal source of ratemaking statistics, then perhaps the controversy over the transfer program might wane.

REVISION OF EXPENSE PROVISION

After the two groups had presented their reports at the June 1965 NAIC convention, the stock company members of the Committee to Study

Expenses by Size of Risk set about the task of applying to the ratemaking formula for workmen's compensation whatever results might be obtainable from the study of expenses. This phase of the operation was undertaken by stock companies only, because the expense provision in the rates is based on indications for this class of carrier exclusively.

Early in its deliberations, this group agreed to several basic propositions, chief among which were:

1. The indications of the study of expenses by size of risk were to be used for relativity purposes only; the level of the expense need was to be based on the latest three years of data available, as compiled by the National Bureau of Casualty Underwriters, namely, 1962-1964.
2. The broadest possible base was to be used for the required premium distribution; this was the National Council's 1962 study.
3. In attempting to fit an expense program to the indications from the 1965 study, the three-year fixed rate policies were to be excluded because the program was still too new to have been fully exploited.

In applying these guidelines and working toward the ultimate objective, certain other adjustments to the data suggested themselves. Since average three-year incurred company expenses (payroll audit and other general expense) were to be used, the three-year average earned premium for those companies which reported said figures had to be used, and distributed on the basis of the 1962 National Council study of premiums by size (decision No. 2 above). Since, however, at the time such study of premiums by size was undertaken, the Three-Year Fixed Rate Program was still in its infancy, it was decided to redistribute premiums under $100 per year between one- and three-year terms on the basis of the relationship observed in the 1965 workmen's compensation study of expenses by size of risk. Also, it became apparent, before the committee had progressed very far, that a premium interval of $100 to $199 would be necessary; therefore, since such an interval was not available from the National Council study of premiums by size, the individual members of the committee derived such a division of the $100 to $499 premium size group from internal company data. The premium distribution, as finally derived, is shown in column (3) of Exhibit I.

Column (4) of Exhibit I shows the percentages of total standard premium, for each premium size group, as prepared by the National Council after its 1962 study, with the Under $100 and Three-Year Fixed Rate per-

EXHIBIT I

WORKMEN'S COMPENSATION STUDY OF EXPENSES BY SIZE OF RISK - 1965

(National Council 1962 Distribution of Risks by Premium Size
Adjusted to National Bureau 1962-1964 Premium Level)

NON-PARTICIPATING STOCK COMPANIES

Annual Premium Size (1)	Number of Policies (2)	Net Earned Standard Premium (000 omitted) (3)	% of Total (4)	Net E. S. P. Excluding $10 Expense Constant (000 omitted) (5)	Average Earned Standard Premium (6)
Under $ 100	573 333	$ 29 240	3.37	$ 23 507	$ 51
$ 100 - 199	253 161	38 569	4.45	36 037	152
200 - 499	272 069	89 062	10.26	86 341	327
500 - 749	80 144	49 369	5.69	49 369	616
750 - 999	39 946	34 793	4.01	34 793	871
1 000 - 4 999	93 561	199 471	22.99	199 471	2 132
5 000 - 24 999	16 854	168 931	19.47	168 931	10 023
25 000 - 49 999	1 871	63 251	7.29	63 251	33 806
50 000 - 99 999	797	51 538	5.94	51 538	64 702
100 000 - 249 999	420	61 256	7.06	61 256	145 977
250 000 and over	159	73 056	8.42	73 056	460 545
Sub-Total	1 332 315	858 536	98.95	847 550	644
Three-Year Fixed Rate	189 792	9 110	1.05	7 212	48
Total	1 522 107	$867 646	100.00	$854 762	$ 570

centages adjusted as described above, and the National Council's \$100-\$499 premium size divided into two components. The percentages of column (4) were applied to the total shown for column (3) which is derived on line 1 of Exhibit II, to produce the individual numbers in column (3).

Column (5) was derived by removing \$10 per policy [column (2)] from the premiums of column (3) for all premium sizes less than \$500. While \$10 per year for each three-year fixed rate policy may be a slight overstatement of the expense constant income, the development of the final expense program did not make direct use of the proportion of expenses assigned to these three-year policies.

Column (6) was taken from the study of expenses by size of risk to utilize the latest available data for this statistic.

Column (2) was derived by dividing the premiums of column (3) by the corresponding average sizes of column (6).

The next step entailed distributing the needed general administration and payroll audit expense, as derived from the National Bureau three-year average figure, augmented by the customary 0.5% transfer (Exhibit II), to premium size group on the basis of the expense reported for each of these size intervals in the recently completed expense study. Here, the sum of the ratios (to earned premium) of payroll audit, other general, and net transfer to other general was applied, by size group, to the premium distribution; the amounts so obtained were adjusted to produce the total needed expense. The results of these three steps are shown on Exhibit III in columns (2), (3), and (4) respectively.

It then remained merely to fit an expense program – expense constant plus manual rate provision – to this distribution of required expense income. A total of ten different combinations of expense loadings and expense constants was tested before a satisfactory balance between expense income and expense need, for each size group, was struck. All ten arrangements had one feature in common – expense constants greater than $10 for poliices of less than $200, because it was for these premium sizes that the greatest expense deficiencies were observed. Inadequate expense income, from such small premiums, is much more dramatically corrected through this "policy fee" approach than through higher percentage loadings in the rates.

The program ultimately selected as producing the best fit incorporated expense constants of $17 for policies less than $200 and $10 for policies from $200 to $499, and a graded provision, for general administration and payroll audit, of 6.7% on the first $1,000 and 3.0% on premium in excess of $1,000. To complete the revised expense program a provision of 2.0%, formerly 2.5%, was proposed for inspection, boards and bureaus. This figure was based on the latest available data, compiled by the National Bureau of Casualty Underwriters, for non-participating companies entered in New York. The provision for this expense was continued as a flat percentage because the study of expenses by size of risk, as did its predecessor of 1949, gave no clear indication of a need for graduation in this expense.

EXHIBIT II

CALCULATION OF INDICATED PROVISION FOR GENERAL ADMINISTRATION AND PAYROLL AUDIT

DATA FROM NON-PARTICIPATING STOCK COMPANIES ENTERED IN NEW YORK

	(000 Omitted)			
	1962	1963	1964	3-Year Average
(1) Net Earned Standard Premium	$801 097	$874 070	$927 770	$867 646
(2) Incurred General Administration and Payroll Audit Expense	46 550	49 589	49 023	48 387
(3) "Transfer" (.005 x 854 762*)				4 274
(4) Total Expense Need for General Administration and Payroll Audit [(2) + (3)]				52 661

* Net Earned Standard Premium excluding $10 Expense Constant, from Column (5) of Exhibit I

EXHIBIT III

WORKMEN'S COMPENSATION STUDY OF EXPENSES BY SIZE OF RISK - 1965

NON-PARTICIPATING STOCK COMPANIES

Annual Premium Size (1)	General Administration & Payroll Audit Expense Need: Reported in 1965 Study (2)	(2) Applied to Exhibit 1 Premium Distribution (3) (000 omitted)	(3) Adjusted to 1962-64 Level (4)
Under $ 100	30.9 %	$ 9 035	$ 9 180
$ 100 - 199	10.3	13 146	13 357
200 - 499			
500 - 749	7.5	3 703	3 761
750 - 999	6.8	2 366	2 403
1 000 - 4 999	4.3	8 577	8 714
5 000 - 24 999	3.3	5 575	5 664
25 000 - 49 999	3.4	2 151	2 185
50 000 - 99 999	3.3	1 701	1 728
100 000 - 249 999	2.9	1 776	1 805
250 000 and over	3.0	2 192	2 226
Sub-Total		50 222	51 023
Three-Year Fixed Rate	17.7	1 612	1 638
Total		$51 834	$52 661

A special study undertaken by the National Council early in 1965, at the suggestion of its Actuarial Committee, indicated that the provision in rates for taxes, licenses and fees, other than state premium taxes, ought to be increased from 0.5% to 0.7%. This recommendation was therefore included as part of the revised expense program.

Since the expense study by size of risk indicated significantly lower expenses on three-year fixed rate policies than on one-year policies of similar size, it was apparent that greater use ought to be made of this historic product of the 1949 study. It was therefore decided to increase the premium eligibility for this program from \$100 to \$200 and to charge only two expense constants on these policies. As in the past, one expense constant would be waived if the three-year premium were paid in advance. These inducements to insureds to purchase three-year fixed rate policies meant that a risk of up to \$200 could, under the new program, realize a reduction in its premium despite the rather sharp increase in expense constants. Where previously \$30 in expense constants had been charged for three annual policies, a three-year fixed rate policy could now be purchased with expense constants of \$17 or \$34 depending on the mode of payment. The \$4 increase in total expense constant, for three-year policies paid in installments, was partially offset by the reduction in rate level produced by this revised expense program.

After the necessary committee approvals for this package program were secured in the National Council, these revised expenses were included with the annual rate revisions filed in several states towards the close of 1965. No approvals were forthcoming, however, before the NAIC met in Miami at the end of November and received the final report of its Subcommittee of Technicians on the expense study by size of risk (Exhibit E in Appendix). This subcommittee report recommended, like the industry program, a graduated expense constant, but starting at \$15 instead of \$17. It also suggested a manual expense provision, for general administration, payroll audit, and inspection, boards and bureaus, of 7.8% which would drop to 4.8% for premium in excess of \$1,000. Finally, the NAIC subcommittee gave tacit approval to the broadened eligibility for, and liberalized expense constant treatment of, the Three-Year Fixed Rate Program. The discrepancies between the industry and NAIC expense provisions are attributable mostly to the difference of opinion on the transfer idea and the use of a single calendar year's paid expenses to establish the needed level of expenses.

One more round of National Council committee meetings was required to rationalize the use of a \$15 expense constant for policies of less than \$200. To compensate for this reduction in expense income, the manual provision for general administration and payroll audit was increased from 6.7% to 6.9% and the provision for same on premium in excess of \$1,000 was increased from 3.0% to 3.1%.

The combined effect of all these changes in expenses produced a permissible loss ratio of 60.0%, replacing the 59.6% used previously, and premium discounts as follows:

First	$	1,000	0.0%
Next		4,000	9.3
Next		95,000	14.6
Over		100,000	16.1

The degree to which this final revision of expenses and expense constants conforms to the requirements for each size of risk is shown on Exhibit IV. Column (2) on this exhibit is a downward accumulation of the figures appearing in column (4) of Exhibit III. The estimate referred to in the footnote, for premiums under $200, was derived graphically. The expense constant contribution to the general administration and payroll audit expense provision, as shown in column (4), is now derived by taking 77.3%* of the total expense constant collected. The increase of 0.2% in the tax provision necessitates a similar decrease in the amount of expense constant available for general administration and payroll audit.

A comparison of columns (2) and (6) on Exhibit IV indicates that, while the expense provision is most inadequate at those premium sizes where a $17 expense constant was originally proposed, the expense need vis-à-vis the expense provision for "All Risks" leaves little to be desired.

A comparison, at the several levels of premium, of the components of the revised expenses and those they replaced is shown on Exhibit V.

This new expense program has been included by the National Council with each rate revision filed since the end of 1965 and has yet to be disapproved in any state.

CONCLUSION

In retrospect, it is apparent that the cooperative efforts of representatives of industry and supervisory officials were well spent in refining the derivation and application of the expense components of workmen's compensation rates. It is also evident that these intensive studies have produced results which preclude the necessity of undertaking another project of such magnitude and such expense in the foreseeable future.

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* 100.0 — (Production + Tax + Profit)
Formerly: 100.0 — (17.5 + 2.5 + 2.5) = 77.5
Revised: 100.0 — (17.5 + 2.7 + 2.5) = 77.3

EXHIBIT IV

WORKMEN'S COMPENSATION STUDY OF EXPENSES BY SIZE OF RISK - 1965

NON-PARTICIPATING STOCK COMPANIES

GENERAL ADMINISTRATION AND PAYROLL AUDIT

			Expense Provision (000 Omitted)			
Annual Premium Size (1)	Expense Need (000 Omitted) (2)	% of Total (3)	Expense Constant (4)	Rate Provision (5)	Total (4) + (5) (6)	% of Total (7)
Under $ 100	$ 9,180	18.0 %	$ 6,648	$ 1,622	$ 8,270	16.2 %
Under 200	15,000 *	29.4 *	9,583	4,109	13,692	26.8
Under 500	22,537	44.2	11,686	10,067	21,753	42.6
Under 750	26,298	51.5	11,686	13,473	25,159	49.3
Under 1,000	28,701	56.3	11,686	15,874	27,560	54.0
Under 5,000	37,415	73.3	11,686	25,613	37,299	73.1
Under 25,000	43,079	84.4	11,686	31,490	43,176	84.6
Under 50,000	45,264	88.7	11,686	33,522	45,208	88.6
Under 100,000	46,992	92.1	11,686	35,150	46,836	91.8
Under 250,000	48,797	95.6	11,686	37,065	48,751	95.5
All Risks	51,023	100.0	11,686	39,336	51,022	100.0

* Estimated

EXPENSE CONSTANT

Under $100	$15
$100 - 199	15
200 - 499	10

EXPENSE LOADING

1st $ 1,000	6.9%
Next 99,000	3.1
Over 100,000	3.1

EXHIBIT V

WORKMEN'S COMPENSATION STUDY OF EXPENSES BY SIZE OF RISK - 1965

NON-PARTICIPATING STOCK COMPANIES

COMPARISON OF EXPENSE PROVISIONS UNDER FORMER AND REVISED PROGRAMS

	1st $1,000		Next $4,000		Next $95,000		Over $100,000	
	Old	New	Old	New	Old	New	Old	New
Production	17.5%	17.5%	12.5%	12.5%	7.5%	7.5%	6.0%	6.0%
General Administration and Payroll Audit	7.0	6.9	3.5	3.1	3.5	3.1	3.0	3.1
Inspection, Boards and Bureaus	2.5	2.0	2.5	2.0	2.5	2.0	2.5	2.0
Loss Adjustment	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
Profit and Contingencies	2.5	2.5	2.2	2.2	2.3	2.1	1.9	2.1
Expected Losses	59.6	60.0	59.6	60.0	59.6	60.0	59.6	60.0
Tax	2.5	2.7	2.3	2.5	2.2	2.3	2.1	2.3
Premium Discount	-	-	9.0	9.3	14.0	14.6	16.5	16.1

APPENDIX

EXHIBIT A

LETTER FROM NATIONAL COUNCIL ON COMPENSATION INSURANCE TO NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

December 4, 1962

Honorable Cyrus E. Magnusson, Chairman
Fire, Marine, Casualty & Surety Committee
National Association of Insurance Commissioners

Dear Commissioner Magnusson:

Re: Workmen's Compensation-Analysis
of Expenses by Size of Risk

Under date of May 16, 1951 the National Council on Compensation Insurance reported to a Special Subcommittee of the Workmen's Compensation Committee of the NAIC an analysis of workmen's compensation expenses by size of risk. The purpose of the analysis, as stated in the National Council's report, was to determine the degree to which expenses graduated in accordance with workmen's compensation rating programs corresponded to the actual distribution of expenses as measured by data obtained from individual company reports. At the June 1951 meeting of the NAIC, the Workmen's Compensation Committee, which has since been dissolved, accepted the report of its subcommitee, including the report of the National Council, and the consideration of the subject of expenses by size of risk was deemed completed.

In recalling this background, I would like to announce that pursuant to action taken by its authorized Committees, the National Council on Compensation Insurance is undertaking another analysis of expenses by size of risk for workmen's compensation insurance.

In the belief that the Fire, Marine, Casualty and Surety Committee is the appropriate Committee for the consideration of this matter, it is hereby offered as an item for the agenda of the Committee. If you should deem it desirable to appoint a Subcommittee as was done in connection with the earlier study, we would be most happy to cooperate with it.

Yours very truly,
George F. Reall
General Manager
National Council on Compensation Insurance

EXHIBIT B

LETTER FROM NATIONAL COUNCIL ON COMPENSATION INSURANCE TO NEW YORK INSURANCE DEPARTMENT

Re: Study of Expenses By Size of Risk

On April 1, 1963 we wrote to you outlining what the National Council Committee to Study Expenses by Size of Risk believed should be the scope of the proposed study of expenses by size of risk. Subsequently, a meeting of the Committee was held on May 23, 1963 at the offices of the National Council on Compensation Insurance at which certain members of the NAIC (F3) Subcommittee also were present as observers. After having had the benefit of an exchange of views with the members of the (F3) Subcommittee, the National Council Committee to Study Expenses by Size of Risk would like to amplify its views on the scope of the study:

(1) The study should embrace not only workmen's compensation insurance but automobile liability and general liability insurance as well. Representatives of the National Bureau of Casualty Underwriters and the Mutual Insurance Advisory Association have announced a decision on the part of their respective organizations to undertake a study of expenses by size of risk for automobile and general liability insurance, and they have expressed the desire that a special study be so organized as to make it possible to include such other lines of insurance. It was observed that there is frequently an underlying relationship between the liability and compensation lines and that studying them together would provide an overall control with respect to expense allocation. Furthermore, the additional information would be valuable and could be obtained at very little additional cost to the companies.

(2) As respects workmen's compensation, all member companies whose compensation premium writings are in excess of $5,000,000 will be requested to participate in the study. Because of the diversification of their business by size of risk and the substantial proportion of the total business they transact in each premium size bracket, the expense data developed by these companies should prove adequate to determine the degree of expense graduation by size of risk. In addition, smaller companies will be allowed to participate if they volunteer to furnish their data. Insurance companies in a "group" will be permitted to submit data on a group basis.

(3) Commissions, loss adjustment and investment expenses will be excluded.

(4) For each line of insurance a premium size schedule should be established according to standard earned premium per risk as follows:

Less Than	–	$100	5,000	–	$ 9,999
100	–	499	10,000	–	29,999
500	–	749	30,000	–	49,999
750	–	999	50,000	–	99,999
1,000	–	4,999	100,000	–	249,999
			250,000	–	and over

As respects workmen's compensation insurance, the 1962 study conducted by the National Council on Compensation Insurance which established a countrywide distribution of premium by size of risk may be used. It is not deemed necessary, for the purpose of an effective study of expenses by size of risk, that both premiums and expenses relate to the same period of time. The proposed procedure will materially accelerate the progress of the study since it is estimated that it would take approximately two years to study both premiums and expenses for a particular calendar year and, moreover, the expense of conducting such a detailed study would be considerable.

For other lines, the carrier should determine its own distribution of premium to conform with the premium size schedule for the period under study by the following method or equivalent:

(a) By using a recent policy year distribution with necessary adjustments,

or (b) By analysis of payroll audit earned premium data,

or (c) By analysis of written premium data on a sample basis.

(5) The analysis will be made on expenses paid rather than expenses incurred. It is believed that no significant distortion can result from this procedure since expense reserves are usually very small. Moreover, it would be extremely difficult, if not impossible, to provide reasonable allocations of outstanding expenses by size of risk. In any case, where paid expenses, for one reason or another, are not equivalent to incurred expenses, the company will be required to report such fact. In addition, every company will

be required to show the total General Expenses and Other Acquisition, Field Supervision and Collection Expenses on both a paid and incurred basis.

Notes: (1) At the time of the last study, the question of whether or not there is any significant difference by size of risk as respects claim expense for most casualty lines was explored. It was the opinion of the industry that there were no significant variations. In the course of the study a few companies actually undertook special research on this question, the results confirming this opinion.

It is felt that many elements have as much, if not more, influence on variations in claim expense than do mere variations in size of risk. For example, many large risks have widely dispersed small or medium size separate locations, the result being that the economies otherwise expected of a centralized operation are absent. Even with risks in one location, and of comparable size, there is the influence of the dispersion of injured employees. Again, the incidence of serious cases will affect claim costs and this is not a function of size.

Where there is an absence of good reason to believe that the results will be useful and significant, it is submitted that it would not be feasible to include claim adjustment expense in a study of expenses by size of risk.

(2) The purpose of an expense study by size of risk is to provide data which will be of assistance in establishing or modifying rates and rating plans. In this connection, it is appropriate to consider expenses in two categories (a) non-budgetary, those for which expense experience has some degree of relevancy and (b) budgetary, those for which ratemaking allowances are established on a prospective basis. In the first group are found such items as administration, audit and inspection – functions common to all types of insurance carriers, large and small, stock and non-stock.

In the second group, the budgetary items are those such as commissions, taxes and assessments. Yesterday's taxes and assessments are no guide to tomorrow's. Legislative action or some economic circumstance may change the requirements at any time. For example, a workmen's compensation security fund tax is an item which is levied intermittently depending upon the level of the fund. Obviously, any ratemaking provision based on the past experience for this item would not be appropriate for prospective needs.

In the same philosophy, an allowance for commissions on a budgetary basis is the historically accepted method for these lines of business. The freedom to negotiate commission contracts has been firmly established, including the right to pay no commission at all, and a pattern of almost infinite variety has developed. Commission contracts vary by line, by state, by size of risk, and by type of agency. Commission scales vary according to whether the agent is a General Agent, Regional Agent, Broker or Producer, or a modification thereof. Commissions may vary between participating and non-participating policies, and may also be contingent upon underwriting profit. They also vary as to class of business in that the usual company commission contracts do not apply to assigned risks.

The combined commission experience for a group of carriers in any one year would be a meaningless average of all the different possibilities, representative of none and subject to immediate change at any time by contractual agreement.

Under the circumstances, no useful purpose would be served by inclusion of commissions in a study of expenses by size of risk. The varied pattern of commission payments makes the budgetary allowance the only practical approach for ratemaking and rating plans. Thus, such inclusion in the study would contribute nothing to its basic purpose and the considerable cost to the companies would be wasteful and uneconomic.

It is very difficult to obtain from existing records of most carriers paid commissions and paid premiums by state and by policy for the lines of insurance involving audited or adjustable premiums such as those under study. Agents' reports, which are the basic source of information as to commissions, relate exclusively to the transactions covered by the report. Such transactions may represent a deposit premium, a monthly or quarterly audit, an advance or refund following audit, or a retrospective adjustment. The several premium transactions relating to an individual policy may be spread over a period of time of more than a year. The report carries no information as to the total policy premium and it is extremely difficult to assemble the individual elements of the policy premium, because of the vast number of transactions. Since the information is not readily available in the form necessary for study purposes, the complexity and expense of providing proper data would be disproportionately high in relation to any conceivable contribution commission by size of risk could make to the overall study of expenses.

EXHIBIT C

CIRCULAR LETTER FROM NATIONAL COUNCIL ON COMPENSATION INSURANCE TO ALL MEMBERS AND SUBSCRIBERS

July 2, 1964

Gentlemen:

Re: Special Call to Obtain Expense Data By Size of Risk

In our Circular Letter of January 20, 1964 to all members and subscribers the carriers were informed that the National Council was about to engage in a new study of expenses by size of risk. The preparation of this Call has been completed in cooperation with the National Association of Insurance Commissioners and a memorandum containing the instructions is attached.

Carriers whose 1963 premium writings are in excess of $5,000,000 are requested to participate. Participation by other carriers will be welcome if they should care to contribute this information. Be sure to indicate in the space provided in the acknowledgement form whether or not your company will be participating in the study.

The study is confined to workmen's compensation insurance and will not include automobile and general liability insurance as previously announced.

Carriers may report on a group or fleet basis if they so desire.

It is suggested that the study be completed by the end of the year in order to avoid conflict with the preparation of Annual Statements. In any event, all data must be submitted to the National Council on Compensation Insurance by not later than March 1, 1965.

Please feel free to submit any questions you may have pertaining to the Special Call. A special advisory committee has been established for the purpose of helping those carriers with questions about the details of making the study.

July 2, 1964

MEMORANDUM

Re: Minimum Requirements to Obtain Expenses by Size of Risk

(A) A premium size schedule should be established according to standard earned premium per risk as follows:

Less Than	–	$ 100	25,000	–	$ 49,999
100	–	499	50,000	–	99,999
500	–	749	100,000	–	249,999
750	–	999	250,000	–	And Over
1,000	–	4,999	3 Years Fixed Rate Policies		
5,000	–	24,999			

The 1962 study conducted by the National Council on Compensation Insurance which established a countrywide distribution of premium by size of risk, or any more recent complete policy year, may be used. It is not deemed necessary for the purpose of an effective study of expenses by size of risk that both premiums and expenses relate to the same period of time.

(B) The analysis will be made on expenses paid rather than expenses incurred. It is believed that no significant distortion can result from this procedure since expense reserves are usually very small. Moreover, it would be extremely difficult, if not impossible, to provide reasonable allocations of outstanding expenses by size of risk. In any case, where paid expenses for one reason or another, are not equivalent to incurred expenses, the company will be required to report such fact. In addition, every company will be required to show the total General Expenses on both a paid and incurred basis.

It is assumed that prior to the actual analysis of expenses by size of risk the carriers will have made certain allocations in accordance with the instructions and procedures required by uniform accounting regulations where applicable, namely,

1. Total salaries and other expenses will have been properly allocated among companies operating under the same management.

2. Within each company salaries and other expenses will have been properly allocated to:

(a) General Administration wherever incurred.

Note: Other Acquisition items reported as Administration items under uniform accounting regulations included in (a) above should be shown separately. For detailed description of transfer items refer to Addendum B attached.

(b) Acquisition and Field Supervision (including commissions) wherever incurred.

Note: Administration items reported as Other Acquisition under uniform accounting regulations included in (b) above should be shown separately. For detailed description of transfer items refer to Addendum B attached.

(c) Exposure Audit wherever incurred.

(d) Inspection, Bureau and Safety Engineering.

(e) Claims Investigation.

(f) Investment Expense.

3. For divisions 2(a) to 2(e), inclusive, salaries and other expenses will have been properly distributed to workmen's compensation insurance.

4. For workmen's compensation, salaries allocated to divisions 2(a) to 2(e), inclusive, will have been properly distributed to department.

The carrier should determine the distribution of salaries and expenses for workmen's compensation by size of risk. The distribution indicated for the divisions of department or functions listed below is a suggested method. If a carrier submits data determined in a different way, it should indicate the areas in which it deviated from the method outlined below. In determining the expenses to be distributed to size in these divisions, as a minimum requirement, traveling expenses should be added to the salary expense of each division. Other kinds of expenses may be distributed to the divisions in proportion to salary expenses of the divisions.

1. DISTRIBUTED BY SPECIAL RESEARCH (See Addendum A)

(a) Underwriting
(b) Actuarial and Statistical
(c) Individual Risk Experience
(d) Exposure Audit
(e) Inspection and Safety Engineering
(f) File
(g) Acquisition and Field Supervision Including Commissions
(h) Executive
(i) Data Processing

2. DISTRIBUTABLE ON THE BASIS OF PREMIUM

(a) General Accounting
(b) Taxes
(c) Bureau
(d) Advertising
(e) Corporate Legal

3. DISTRIBUTABLE IN PROPORTION TO EXPENSES OF DEPARTMENTS AND/OR FUNCTIONS SERVICED

(a) Personnel
(b) Comptroller
(c) Payroll (Company Payroll Department)
(d) Cafeteria
(e) Health and Welfare (Employee)
(f) Mail, Telegraph, Telephone, Messenger
(g) Printing and Photostating
(h) Purchasing and Supply

In establishing a program for expense allocation it must be realized that the method used to allocate an item of expense to a line of business need not be the same method of allocating the expenses for such item to size of risk. The company should use the method which it believes will provide the most accurate allocation of expenses to size of risk.

(C) Having determined the allocation of salaries and other expenses by department or function in accordance with the methods described above, the expenses by size of risk should be summarized and related to the premium distribution to obtain expense ratios by size of risk.

(D) In the conduct of the analysis the carrier should prepare legible worksheets and such records should be maintained in good order and should be available for examination.

ADDENDUM A

Special Research

Attached hereto are two exhibits to guide the carrier in the establishment of methods for distributing expenses of the items for which special research is required.

It should be stressed that differences in the organizations and procedures of carriers make it impossible to prescribe in detail the methods which must be used. It is possible only to state the basic objective and to illustrate appropriate approaches.

In general, the objective is to ascertain the portion of the total time of employees which risks in each size group require. These portions should be converted to salary expense, and the salary expense loaded for other expenses. It should be stressed that in making these determinations, actual time studies may not be necessary. In the survey of operations under consideration, efforts should be made to utilize available work unit statistics to apportion the time of employees to the various size groups.

Hence, the items for which special research is required should be broken down, if necessary, into components for which a method can be found of distributing expense. It is understood that premium is not precluded as the basis of allocation for either the entire function or a part of a function. The disposition of the exposure audit expense and the similar inspection and engineering expense is illustrated in Example 1.

In the use of sampling methods and time studies to obtain a means of distributing expenses, the carrier's knowledge of its own procedures and records will determine the extent and nature of the methods to be employed.

For some operations, such as the making of field audits, the average time per audit for each size group may be obtained from the auditor's time reports for a sample of policies in each size group. For other operations or groups of operations for which it is feasible to assemble samples of policies or units in various size groups for processing, it may be desirable to time the processing of such samples through the operating sections. Example 2 provides a description of the several steps which may be employed in using this form of sampling procedure.

EXAMPLE 1

ILLUSTRATION OF THE DISTRIBUTION OF EXPOSURE AUDITING EXPENSES

Item	Basis
(a) Field Audit Salaries and Expenses	(a_1) Sampling to determine number of field audits for various policy size brackets.
	(a_2) Time study or equivalent to determine time per audit for various policy size brackets.
	(a_3) Cost to be distributed in proportion to product of a_1 and a_2.
(b) Fee Audits	(b) Sampling to determine number and cost by policy size.
(c) Clerical Costs of Payroll Reports	(c_1) Sampling to determine number of payroll reports for the various policy size brackets.
	(c_2) Time studies or equivalent to determine time per payroll report for the various policy size brackets.
	(c_3) Cost to be determined in proportion to product of c_1 and c_2.
(d) Clerical Costs of Field and Fee Audits	(d_1) Time studies or equivalent to determine time per audit for the various policy size brackets.
	(d_2) Costs to be distributed in proportion to $(a_1 + b)$ times d_1.
(e) Supervision and Miscellaneous Overhead	(e) To be distributed in proportion to foregoing costs by policy size.

DISTRIBUTION OF INSPECTION EXPENSES

Same as for exposure auditing. Time spent on "prospective" risks may be loaded as overhead on determined costs. Time spent on accident analysis for large risks to be distributed to size bracket groups by time studies or equivalent.

EXAMPLE 2

Operational Cost Study

The operational cost study of departments (or functional subdivisions) for which the influence of premium size is measurable by the methods to be described involves the following steps:

1. List the operations performed in each department (or functional subdivision), numbering and arranging them insofar as possible in chronological order.
2. Describe each operation briefly.
3. Indicate for which premium sizes the operation is (or is not) performed.
4. Determine the number of items (policies or units) that were serviced during the year under each operation. This can be obtained most readily by counting the items handled for a reasonable period of time, then projecting to an annual basis, recognizing known seasonal or other variations.
5. Estimate the number of employee work-hours spent during the year in performing each operation.
6. Estimate the salaries and expenses allocable to each operation.
7. Supervisory and executive time, salaries and expenses can be classified into four divisions – (a) that applying to a limited number of the operations performed in the department should be allocated exclusively to these operations in proportion to the distribution of the salaries of the supervised workers, (b) that applying to all of the operations performed in the department should be allocated in proportion to the distribution of the salaries of all of the workers in the department, (c) that involved in performing a specific operation should be classified as such and analyzed in the same manner as that of other workers in the department, and (d) unallocable executive time, salaries and expense, which, in the absence of a better basis, can be distributed in proportion to premiums.
8. In the case of operations that are recorded on the copy of the policy (or similar record) the number of operations per policy under each significant size bracket can be obtained by selecting representative samples of expired policies under each homogeneous classi-

fication, and by determining the average number of recorded operations under each classification. This procedure lends itself readily to the analysis of certain premium accounting and statistical operations in the case of companies which record each such operation on a copy of the policy. The distribution of the total number of policies serviced under each premium size was previously obtained. Multiply the number of policies in each homogeneous classification by the average number of operations performed under each classification during the year.

9. In the case of operations that are not recorded on the copy of the policy (or similar record) the number of operations under each significant size bracket can be obtained by (a) sampling the work handled during a significant period of time and (b) projecting these figures to an annual basis.

10. To determine the relative variation in time per operation, carefully select homogeneous groups of policies that are representative of the policies that are serviced under each significant size bracket, and attach time sheets to each of these groups. These sheets should identify each operation and provide space for indicating the time required to perform each operation on each group. "Representative" clerks should be selected and instructed to perform the operations under "normal" conditions and speed. Two or more homogeneous groups of items under each significant size group should be routed through the department, so that the representativeness of the individual samples can be checked. By this process, a time factor per operation can be obtained for each significant size bracket.

11. Having previously obtained the total number of operations performed in each homogeneous classification (Step 8 and 9), multiply the number of operations by the average time per operation developed in Step 10 to determine the time spent on each size group.

12. Develop the cost for each significant size group by distributing salaries and expenses in proportion to time spent, however, if large policies are handled by higher paid employees, use a different time to cost conversion factor for small, and large policies.

13. Develop the average cost per dollar of premium and per policy for each significant size group by dividing the total cost by the dollars of premium and number of policies respectively.

ADDENDUM B

Transfer Items Under Uniform Accounting Regulations

The following is a summary of items which had been transferred from "Other General Expenses" to "Acquisition, Field Supervision and Collection Expenses" under uniform accounting procedures:

Home Office expenses for purposes of acquisition, field supervision and collection, i.e., for any of the purposes enumerated in Uniform Accounting Regulations.

1. Policy writing.
2. Collection and accounting related to acquisition.
3. Compiling and distributing expiration lists.
4. Advertising and publicity (including required institutional advertising).
5. Receipt and paying of premiums and commissions, including handling of producer accounts.
6. Sales work by personnel operating out of the home office, including contact work for goodwill purposes.
7. Rendering service to agents and other producers.

Items which had been transferred from "Acquisition, Field Supervision and Collection Expenses" to "Other General Expenses" are as follows:

1. Cost of entering rates, premium, classifications and territory codes and other rating information on applications and daily reports from a rate manual or a rate card.
2. Quoting of rates by underwriters to brokers, assureds or prospects.

EXHIBIT D

NATIONAL COUNCIL ON COMPENSATION INSURANCE REPORT OF THE SPECIAL COMMITTEE TO STUDY EXPENSE BY SIZE OF RISK TO NAIC SUBCOMMITTEE TO STUDY EXPENSES BY SIZE OF WORKMEN'S COMPENSATION RISK

The National Council on Compensation Insurance informed the Fire, Marine, Casualty and Surety Committee of the National Association of Insurance Commissioners at its December, 1962 meeting that it was planning on conducting another study of expenses by size of risk. The preparation of a Special Call To Obtain Workmen's Compensation Expense Data ensued and the scope of the report was accepted by your Subcommittee at the June, 1964 NAIC meeting. The Call was released on July 2, 1964.

The purpose of the study is to compare the graduation shown by the data collected with the graduation of expenses currently underlying the rating system, including the expense constant amount.

In accordance with the April 1, 1963 and June 8, 1964 industry reports, and the NAIC Subcommittee reports of June 16, 1963 and June 8, 1964, it was agreed that the study would be based on paid workmen's compensation expenses for Calendar Year 1963 and would embrace the following items of expense:

(1) Inspection, Boards and Bureaus

(2) Payroll Audit

(3) Other General Expenses

(4) Total Production Cost

Responding to the Call were 52 non-participating stock carriers with a total annual direct standard earned premium of $679,253,621 representing 72% of the total non-participating stock premium volume. There were also 20 mutual carriers with an annual direct standard earned premium of $526,510,433 representing 90% of the total premium volume for mutual carriers. There are appended Charts I, II, III and IV which show the aggregate figures reported for each group and the expense percentages by premium size.

The results of this analysis for the non-participating stock companies are shown in the attached Chart V. Column (1) indicates the average premium per policy including the expense constant income. The analysis which follows assumes that a full $10 expense constant per policy under $500 was collected. However, for such policies the average expense constant income actually was slightly less than $10.

The provision for Administration and Payroll Audit reflected in Column (2) was obtained by applying first, the graded provisions of the current rating system which are: 7% for the first $1,000 of premium, 3.5% for the next $99,000 of premium, and 3% for premium amounts in excess of $100,000; plus, second, that portion of the expense constant allocated to General Administration and Payroll Audit for risks under $500. Keeping in mind that the purpose of the study is to compare the current graduation with the indicated graduation, the resulting expense provision by size for all sizes of risks was prorated to produce the reported paid expenses for this item for all risks.

The provision for Inspection and Bureau in Column (3) was obtained by multiplying the average premium per policy (minus the \$10 expense constant for policies under \$500) by .025 and adjusting the total amount to the reported paid level.

Column (4) shows the total provision for the items of expense under consideration and is the sum of the figures shown in Columns (2) and (3). Column (5) reveals the reported paid expense per policy obtained by dividing the total reported paid expenses by the number of policies.

At the request of the NAIC, the total production costs were included in the study, and are shown in the attached Charts I and II. However, since rates of commission are a matter of contract between the companies and their agents, the companies believe that no meaningful comparison can be made between reported paid production costs and the amount available in the rating system.

The present program contemplates an expense graduation by size of risk with a \$10 expense constant for risks under \$500. The data produced by the Special Call reaffirm the soundness of the present program and, as a matter of fact, indicate that an expense constant of a higher amount and a higher point of application is justified.

The data for Three-Year Fixed Rate policies, as shown in Charts I and II, while rather thin due to the relative newness of the program and the short period studied for such risks, demonstrate that this program does help in making significant savings.

The second part of this analysis relates to reported data for non-stock carriers shown in the attached Charts III and IV.

The data compiled by the mutual companies indicate the following:

(1) The general program used to collect expenses from insureds is appropriate, i.e., an expense constant per policy for the smaller size policies plus a percentage of the standard premium which decreases as the size of such premium increases.

In Chart VI attached, a formula is developed using the same premium boundaries as are in effect under the current expense graduation program, which will reproduce the reported paid expenses of the mutual companies reasonably well by size of risk.

(2) In certain premium size areas, particularly in the smaller premium sizes, the data strongly suggest that the expense constants

WORKMEN'S COMPENSATION

ANALYSIS OF EXPENSES BY POLICY SIZE, CALENDAR YEAR 1963

Non-Participating Stock Carriers

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
			EXPENSES ANALYZED BY SIZE					
Annual Premium Size	Number of Policies	Direct Standard Earned Premium	Inspection, Boards and Bureaus	Payroll Audit	Other General	Total Production Cost	Transfer To General Adm. From Other Acq.	Transfer To Other Acq. From Gen. Adm.
Under $ 100	397,304	20,106,307	517,136	1,692,404	3,914,798	5,153,911	715,580	126,413
100 - 499	348,572	84,862,027	1,465,632	3,202,267	4,987,753	16,100,003	803,272	216,250
500 - 749	55,568	34,248,298	609,087	920,106	1,463,158	6,172,843	224,085	79,187
750 - 999	27,955	24,341,005	535,590	511,307	1,082,321	4,367,326	157,467	61,793
1,000 - 4,999	71,530	152,499,448	2,611,468	2,085,196	4,052,411	23,182,501	656,858	276,736
5,000 - 24,999	13,866	138,979,411	2,596,633	1,194,995	3,218,263	15,769,795	364,930	236,705
25,000 - 49,999	1,497	50,608,006	1,039,429	333,580	1,343,864	4,677,808	112,266	93,298
50,000 - 99,999	679	43,932,664	893,942	249,855	1,144,243	3,734,791	92,255	58,209
100,000 - 249,999	388	56,638,895	1,124,376	280,752	1,330,674	4,500,660	124,218	62,019
250,000 - and over	145	66,778,994	1,575,516	352,499	1,627,787	4,304,581	116,314	58,563
3 Yr.fixed rate policies	130,552	6,258,566	88,655	349,816	616,195	1,336,335	160,762	17,440
Total (Direct)	1,048,056	679,253,621				89,300,554		
Adjustment to Net Basis		-65,609,739				-1,831,229		
Total (Net)		613,643,882	13,057,464	11,172,777	24,781,467	87,469,325	3,528,007	1,286,613

General Expenses Incurred 49,123,560

WORKMEN'S COMPENSATION

ANALYSIS OF EXPENSES BY POLICY SIZE, CALENDAR YEAR 1963

Non-Participating Stock Carriers

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
			EXPENSES ANALYZED BY SIZE					
Annual Premium Size	Number of Policies	Average Direct Standard Earned Premium	Inspection, Boards and Bureaus	Payroll Audit	Other General	Total Production Cost	Transfer To General Adm. From Other Acq.	Transfer To Other Acq.From Gen.Adm.
Under $ 100	397,304	51	2.6%	8.4%	19.5%	25.6%	3.6%	0.6%
100 - 499	348,572	243	1.7	3.8	5.9	19.0	0.9	0.3
500 - 749	55,568	616	1.8	2.7	4.3	18.0	0.7	0.2
750 - 999	27,955	871	2.2	2.1	4.4	17.9	0.6	0.3
1,000 - 4,999	71,530	2,132	1.7	1.4	2.7	15.2	0.4	0.2
5,000 - 24,999	13,866	10,023	1.9	0.9	2.3	11.3	0.3	0.2
25,000 - 49,999	1,497	33,806	2.1	0.7	2.7	9.2	0.2	0.2
50,000 - 99,999	679	64,702	2.0	0.6	2.6	8.5	0.2	0.1
100,000 - 249,999	388	145,977	2.0	0.5	2.3	7.9	0.2	0.1
250,000 - and over	145	460,545	2.4	0.5	2.4	6.4	0.2	0.1
3 Yr. fixed rate policies	130,552	48	1.4	5.6	9.8	21.4	2.6	0.3
Total (Direct)	1,048,056	648				13.1%		
Adjustment to Net Basis								
Total (Net)			1.9%	1.6%	3.6%		0.5%	0.2%

General Expenses Incurred 7.2%

CHART III

WORKMEN'S COMPENSATION

ANALYSIS OF EXPENSES BY POLICY SIZE, CALENDAR YEAR 1963

Mutual Carriers

(a) Annual Premium Size	(b) Number of Policies	(c) Direct Standard Earned Premium	(d) Expenses Analyzed by Size: Inspection, Boards and Bureaus	(e) Expenses Analyzed by Size: Payroll Audit	(f) Expenses Analyzed by Size: Other General	(g) Expenses Analyzed by Size: Total Production Cost
Under $ 100	95,734	4,597,840	186,683	319,155	888,298	1,095,483
100 - 499	100,221	24,332,373	553,339	830,682	1,469,371	3,775,033
500 - 749	21,470	12,981,665	352,675	347,092	585,320	1,705,687
750 - 999	12,522	10,844,803	363,646	251,903	444,737	1,324,024
1,000 - 4,999	42,696	92,994,832	3,066,485	1,513,026	2,916,890	9,210,316
5,000 - 24,999	13,312	140,417,814	4,129,624	1,168,427	3,228,596	9,301,141
25,000 - 49,999	1,747	61,291,538	1,629,493	324,350	1,309,651	3,142,870
50,000 - 99,999	718	50,081,410	1,356,429	214,129	1,003,103	2,074,459
100,000 - 249,999	374	58,913,521	1,576,334	212,564	1,138,456	2,025,872
250,000 - and over	126	69,070,417	1,976,502	219,360	1,179,020	1,674,553
3 Yr. fixed rate policies	14,947	984,220	18,882	21,494	41,541	236,705
Total (Direct)	303,867	526,510,433				35,566,143
Adjustment to Net Basis		-37,694,729				- 540,574
Total (Net)		488,815,704	15,210,092	5,422,182	14,204,983	35,025,569

General Expenses Incurred 34,893,621

CHART IV

WORKMEN'S COMPENSATION

ANALYSIS OF EXPENSES BY POLICY SIZE, CALENDAR YEAR 1963

Mutual Carriers

(a) Annual Premium Size	(b) Number of Policies	(c) Average Direct Standard Earned Premium	(d) EXPENSES ANALYZED BY SIZE: Inspection, Boards and Bureaus	(e) Payroll Audit	(f) Other General	(g) Total Production Cost
Under $ 100	95,734	48	4.1%	6.9%	19.3%	23.8%
100 - 499	100,221	243	2.3	3.4	6.0	15.5
500 - 749	21,470	605	2.7	2.7	4.5	13.1
750 - 999	12,522	866	3.4	2.3	4.1	12.2
1,000 - 4,999	42,696	2,178	3.3	1.6	3.1	9.9
5,000 - 24,999	13,312	10,548	2.9	0.8	2.3	6.6
25,000 - 49,999	1,747	35,084	2.7	0.5	2.1	5.1
50,000 - 99,999	718	69,751	2.7	0.4	2.0	4.1
100,000 - 249,999	374	157,523	2.7	0.4	1.9	3.4
250,000 - and over	126	548,178	2.9	0.3	1.7	2.4
3 Yr. fixed rate policies	14,947	66	1.9	2.2	4.2	24.1
Total (Direct)	303,867	1,733				6.8%
Adjustment to Net Basis						
Total (Net)			2.9%	1.0%	2.7%	

General Expenses Incurred 6.6%

CHART V

WORKMEN'S COMPENSATION - ANALYSIS OF EXPENSES BY SIZE OF RISK

NON-PARTICIPATING STOCK COMPANIES

	(1)	(2)	(3)	(4)	(5)
		Basic Provision in Rates Adjusted To Reported 1963 Paid Expenses			
Annual Premium Size	Average Premium Including Expense Constant	Administration and Audit	Inspection, Boards and Bureaus	Total (2) + (3)	Reported Paid Expense Per Policy After Transfer
Under $ 100	50.61	10.54	.79	11.33	16.90
100 - 499	243.46	23.97	4.55	28.52	29.38
500 - 749	616.33	42.93	12.01	54.94	56.46
750 - 999	870.72	60.65	16.97	77.62	79.59
1,000 - 4,999	2,131.96	109.07	41.54	150.61	127.63
5,000 - 24,999	10,023.04	383.92	195.27	579.19	514.79
25,000 - 49,999	33,806.28	1,212.26	658.62	1,870.88	1,827.55
50,000 - 99,999	64,702.01	2,288.33	1,260.54	3,548.87	3,419.86
100,000 - 249,999	145,976.53	4,890.27	2,843.95	7,734.22	7,211.34
250,000 and over	460,544.79	14,281.16	8,972.45	23,253.61	24,921.06

CHART VI

WORKMEN'S COMPENSATION - ANALYSIS OF EXPENSES BY SIZE OF RISK

MUTUAL COMPANIES

PREMIUMS AND EXPENSES PER POLICY

Annual Premium Size	Number of Risks	Direct Standard Earned Premium	Expenses Excl. Tax & Loss Adj. Expense	Average Premium Adj. to Excl. $10 Exp. Const.	Average Expense Per Risk
Under $ 100	95,734	4,597,840	2,489,619	38.17	26.01
100 - 499	100,221	24,332,373	6,628,425	233.66	66.14
500 - 749	21,470	12,981,665	2,990,774	606.91	139.30
750 - 999	12,522	10,844,803	2,384,310	869.30	190.40
1,000 - 4,999	42,696	92,994,832	16,706,717	2,186.22	391.29
5,000 - 24,999	13,312	140,417,814	17,827,788	10,587.69	1,339.23
25,000 - 49,999	1,747	61,291,538	6,406,364	35,215.19	3,667.07
50,000 - 99,999	718	50,081,410	4,648,120	70,012.33	6,473.70
100,000 - 249,999	374	58,913,521	4,953,226	158,112.30	13,243.92
250,000 and over	126	69,070,417	5,049,435	550,229.63	40,074.88
3 Year Fixed Rate Policies	14,947	984,220	318,622	55.85[1]	21.32

DISTRIBUTION OF EARNED STANDARD PREMIUM BY SIZE GROUP

Annual Premium Size	DISTRIBUTION OF PREMIUM BY SIZE GROUP[2] First $1,000	Next $4,000	Next $95,000	Over $100,000
0 - $ 999	50,541,060	-	-	-
1,000 - 4,999	42,696,000	49,850,039	-	-
5,000 - 99,999	15,777,000	63,108,000	171,636,410	-
Over 100,000	500,000	2,000,000	47,500,000	77,338,763
Total	109,514,060	114,938,039	219,136,410	77,338,763

FORMULA DISTRIBUTION OF EXPENSES BY SIZE GROUP EXCLUDING TAXES AND LOSS ADJUSTMENT EXPENSES

Annual Premium Size	Total Expenses	Expenses From $20 Expense Constant[3]	DISTRIBUTION OF EXPENSES EXCLUDING TAXES AND LOSS ADJUSTMENT EXPENSE BY SIZE GROUP First $1,000	Next $4,000	Next $95,000	Over $100,000
0 - $ 999	14,493,128	4,368,993	10,124,135	-	-	-
1,000 - 4,999	16,706,717	-	8,539,200	8,167,517	-	-
5,000 - 99,999	28,882,272	-	3,155,400	10,349,712	15,377,160	-
100,000 and over	10,002,661	-	100,000	328,000	4,275,000	5,299,661
Total	70,084,778	4,368,993	21,918,735	18,845,229	19,652,160	5,299,661
Formula		19	.200	.164	.090	.069

1. $10 Expense Constant removed since most Three-Year Fixed Rate policyholders pay premiums annually.
2. Premium adjusted to exclude the effect of a $20 Expense Constant for risks under $1,000.
3. Determined by fitting a straight line to the under $1,000 data and loaded for tax and contingencies.

currently in effect are inadequate, and some adjustment in this area might require consideration.

The comments made by the stock companies pertaining to the Three-Year Fixed Rate policies apply with equal force to the mutual carriers. In addition, it does seem appropriate to consider some means of bringing more small risks under the Three-Year Fixed Rate Program.

Since the total expense requirements of the non-stock carriers are necessarily less than the total allowance provided in the rating system, it is not appropriate to process the data reported by the mutuals in the same manner as the stock company figures have been processed.

EXHIBIT E

FINAL REPORT OF NAIC SUBCOMMITTEE TO ITS PARENT COMMITTEE

Summary of Expenses by Size of Workmen's Compensation Risk Study

The Subcommitee's report adopted at the June, 1965 meeting of the National Association of Insurance Commissioners presented an analysis of the calendar year 1963 expenses reported to the National Council on Compensation Insurance. That study pointed toward the actuarial propriety of a \$12 expense constant for risks under \$1,000 with comparable adjustments in manual expense provisions as well as comparable adjustments for the contributions made by general expense toward premium discounts. Since that time, the National Council on Compensation Insurance, on behalf of the insurance industry, has restudied and re-evaluated the report of 1963 expenses.

The new study reflects a determination that expense constants be increased to \$17 for risks under \$200 of premium and the present \$10 expense constant be continued for risks between \$200 and \$500 of premium. In achieving this, the National Council sought information from a special study to distribute policies recorded in the \$100-\$499 premium size bracket. (The Subcommittee has accomplished virtually the same results through an analysis of the graduations of policies, premiums and expenses by size implicit in the 1963 data.) In addition to this, the National Council has modified the 1965 study to reflect the eariler 1962 distribution of risks by premium size and has moved somewhat further away from 1963 actual expenses; it has used calendar years 1962-64 premiums in measuring expense needs.

It is to be noted that the modified study includes a transfer item into general administration and payroll audit expenses which was the subject of the Subcommittee's comments adopted in the June, 1965 report. In accordance with this position, such transfer elements were excluded from the study. On this basis, Table 1 attached presents a program consistent with the reported figures.

Recognizing the patent undesirability of unnecessarily adding expense constant charges to risks above $500 of premium and recognizing the feasibility of increasing the expense constant charges to risks under $200 of premium, the Subcommittee has re-evaluated the tentative study adopted at the June, 1965 N.A.I.C. meeting and has developed the statistical and actuarial indications of the 1963 expense experience of non-participating stock carriers which may be summarized as follows:

(1) For risks under $200 of annual premium size, an expense constant of $15.

(2) For risks from $200-$499, continuation of the present $10 expense constant.

(3) An indicated expense provision in manual rates for general expenses including inspection of 7.8% of premium.

(4) For that portion of premium of $1,000 or more, a reduction of 3.0% from the manual expense.

The Subcommittee notes that the National Council program incorporates the transfer item in its consideration of the "relativity of expense requirements by size of risk". If this item is appropriate, then its program is reasonably consistent with the reported figures, in terms of both relative and manual expense requirements; the effect of utilizing 1962 and 1962-64 information to adjust 1963 reported figures appears to be small.

It is believed that the Subcommittee's program is entirely consistent with the figures revealed by the 1965 expense study, recognizes the practicalities of charging expense constants to smaller risks and would permit the National Council on Compensation Insurance to implement its desired program for making it economical to insure risks under the three year fixed rate program.

TABLE I

WORKMEN'S COMPENSATION
ANALYSIS OF GENERAL EXPENSES BY SIZE, CALENDAR YEAR 1963
ALL NON-PARTICIPATING STOCK CARRIERS INCLUDED IN STUDY

Annual Premium Size	Average Direct Standard Earned Premium*	Total General Expense	77.5% x Expense Constant**	General Expense Excluding Expense Constant		Effect of 3.0% Reduction in Allowance ***
				Amount	As % of Standard Earned Premium	
Under $200	$ 64	$ 15.99	$ 11.63	$ 4.36	6.8 %	
200 - 499	309	30.77	7.75	23.02	7.4	
500 - 749	616	53.85	-	53.85	8.7	
750 - 999	871	76.17	-	76.17	8.7	
Under $1,000	168	22.87	9.85	13.02	7.8	7.8 %
1,000 - 4,999	2,131	122.31	-	122.31	5.7	6.2
5,000 - 24,999	10,023	505.55	-	505.55	5.0	5.1
25,000 - 99,999	43,447	2,300.05	-	2,300.05	5.3	4.9
100,000 or over	231,552	11,804.14	-	11,804.14	5.1	4.8
TOTAL ALL SIZES	640	46.76	9.02	37.74	5.9	5.9

* Excluding Expense Constants
** Expense Constant - $15 under $200
$10 for $200–$499
*** Allowance taken at 7.8% of the first $1,000 of Standard Earned Premium; reduction in allowance applies to that portion of premium over the first $1,000.