

COST ACCOUNTING IN CASUALTY INSURANCE.

BY

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The necessity of some system of cost accounting in casualty insurance catches the attention of all who look even superficially at the accounting and statistical exhibits of organizations in the field of casualty science. No study is necessary to make this need impressive, a quick glance, a bird's-eye view portrays the condition.

Let any one take the detailed annual statements of casualty companies entered in the Insurance Commissioners' Convention Edition statement forms, which are uniform for all points that are common to all states, and make a study of them. Take the statements of the various companies as the writer has done for years and analyze them all in the same manner, finding the ratios of expenses not allocated to lines of business to total cash received for premiums for all lines of business, and the ratios of expenses and losses which are given for lines of business separately to the cash received for premiums for the respective lines, and then compare the results for the various companies and see how widely at variance they are. Some variations must be expected, but those shown differ beyond any reconciliation as to a uniform manner of accounting.

As a particular case in point, work out the ratios of claim expenses paid to losses paid and also to cash received for premiums in the accident and health lines, and observe how greatly they vary for different companies. The amounts spent for claim expenses of the accident and health lines appear ridiculously small for some companies, and the common explanation is that such companies probably include them or most of them under the expense division "Salaries, fees and all other compensation of officers, directors, trustees, and home office employees," upon the interpretation that claim expenses at the home office are home office salary expenses, and despite the warning note in the blank that claim expense "embraces all expenses attending the adjustment of claims, whether

for lawyers, experts, or adjusters, *including home office supervision and clerical work, rents, and generally all expenses in and about the settlement of claims and the defense of actions relating thereto.*"

Another practice of some companies appears to have been the inclusion of first-aid payments under liability policies with the claim expenses concerned with them.

The peculiar statement of another company comes to mind where one year the total claim expenses in connection with liability and compensation business shown as disbursements in the revenue account was less than the unallocated claim expenses stated in connection with the calculation of the liability and compensation loss reserve in accordance with Schedule P. To those unfamiliar with this item, the case was one where the whole was smaller than one of its parts.

Another question arises with regard to "advertising" and "printing and stationery." Do all companies charge the expense of circulars, etc., to the same expense division, be it "advertising" or "printing and stationery"?

Last spring a Committee of the Insurance Commissioners and the Committee on Blanks of the International Association of Casualty and Surety Underwriters met in Hartford, Connecticut, and studied proposed revisions of the disbursement sheet of the Insurance Commissioners' Convention blank with the idea of recasting it so that the financial operations of the companies in connection therewith would by means of such revision and in connection with explanations of what should be included in the various subdivisions, be more accurately shown in a way approximating uniformity for all companies reporting thereon. The deliberations of these two committees brought to light broad divergences in the interpretation of the manner of reporting.

In the above paragraphs the endeavor has been made to point out some of the inconsistencies resulting from the reporting of the companies on a form of statement designed to produce uniformity. We now come to the important consideration of comparing the results of compensation business as carried on by stock companies, mutual companies and state funds; and self insurers can gain much by comparing their results if measured by the same standards as it will be sought to show the other three should be measured by.

Stock and mutual companies and state funds for the purpose of comparison as to efficiency should show the results of their opera-

tions in a uniform manner, and as a further safeguard should be audited by the same disinterested auditors. The public especially, if its money is spent by a state fund has the indisputable right to know if its administrators are as efficient as those connected with stock and mutual companies, and how can the public judge if the measures are not the same? We have in mind one state fund whose expenses are paid by taxation and whose operations are a part of the work of an industrial commission. The expenses of this industrial commission are divided into groups, four of which are "executive," "state fund," "statistical," and "inspection." Not one item of information is shown as to the method of accounting. How much, if any of the expenses of executives, statistical, or inspection staffs are charged to the state fund? Because stock and mutual companies have executive, statistical and inspection expenses, this particular state fund must have them, but the public can not tell whether any or none of such expenses are charged against it. Because this particular illustration is so glaring, it becomes impressive when we consider the situation of stock and mutual companies and state funds *actually accounting* for expenses but in diverse manners.

Take the consideration of medical payments and claim expenses. Medical payments should be charged to losses and claim adjustments to expenses. It is to the advantage of an insurance carrier to appear before the public as paying out as much of its premiums as possible for losses and as little as possible for claim expenses, and right here comes the question of accounting method. It is perhaps unnecessary to say that claims must be adjusted, must be supervised; money is not paid out on uninvestigated conditions. One class of insurance carriers has men to investigate and other men to cure. Another class of carriers has the same men who investigate and also cure; that is to say, they are all physicians. Does the second class of carriers free itself of claim expenses because its physicians do the investigation *and* adjusting? It would seem that it should not, because, though physicians are employed, they perform *two classes* of work—medical and claim adjusting. It is not intended that the ratio of claim expenses to losses should be approximately the same for the two classes of carriers, but it is contended that the cost to the insurance carriers of physicians who also adjust claims should be divided between losses and claim expenses. Otherwise, how can a fair basis of judgment be ob-

tained: for one could not think of proposing that all companies should employ physicians as claim men.

In this connection it is gratifying to note that our Society has a Committee on Terms, Definitions and Symbols, and one on Workmen's Compensation Statistics, the results of whose labors will set standards by which all parties interested ought to measure their operations.

We shall now put aside the consideration of uniformity of reporting as between insurance carriers and take up the proposition of a company transacting multiple lines of insurance which desires, for its own purposes, enlightenment, and guidance, to ascertain as close an approximation as possible to the true cost of conducting *each* of its lines: a company which *does care to know* whether one line is paying a part of the losses and expenses of another line or not, and which, knowing that the acquisition expense of its compensation and liability lines is limited to certain percentages of the premiums, desires to know that it is keeping within the limits.

Right here it should be noted that the proper pro-rating of expenses is not by premium volume. Other methods should be employed, amongst which is the number of transactions handled. If we have \$100,000 of accident premiums and \$100,000 of automobile liability premiums, the premium volume method gives 50 per cent. of expense to each. If, however, for illustration, the average accident premium is \$40 and the average automobile liability premium is \$100, we have 2,500 accident transactions and 1,000 automobile liability transactions, and the pro-rates are 71.43 per cent. to accident and 28.57 per cent. to automobile liability. If it be argued that more time is spent on an automobile liability transaction, let us give it a weight and for illustration let it be 2, and we have 2,500 accident and 2,000 automobile transactions, giving 55.56 per cent. of the expense to accident and 44.44 per cent. to automobile liability. The consideration here is the proper calculation of the weight to be used.

The writer some time ago invented and installed a system for the Fidelity and Casualty Company of New York by whom he is employed, which is in actual operation and forms the basis for this discussion. It, of course, is not the only system of cost accounting, for casualty insurance; it may not be the best system, but it is *a* system. Our consideration of it in this paper may be likened to a silhouette, the form within the outline being capable of various

treatment, with presumably an advantageous variation of the outline itself.

The expenses of a casualty insurance company may be divided into the following two general classifications:

1. Home Office Expense.
2. Field Expense.

Each of these general divisions of expense may be subdivided into:

- (a) Acquisition or Business Getting.
- (b) Underwriting.
- (c) Inspection.
- (d) Claim.

A further item of "Booking" may be assigned to "Home Office Expense."

These subdivisions may be again subdivided *ad libitum* consistent with practicability, but as this paper is a study of *method*, further analysis herein is unnecessary.

It will not be necessary to define these expense classifications except to state that "Booking" is the recording, but not the statistical analysis of the transactions upon the home office records of the company, the same as would be done for any business organization.

Let us first consider the Business-Getting Expense in the Field. This is composed of commissions which can be charged direct to lines, and other expenses such as rent, stationery, traveling, etc., which cannot be so charged. For the pro-rating of these other expenses, count the number of transactions on the books of each branch office and let the relation of the number of transactions for each line of business transacted to the total transactions for all lines be the ratio which when applied to the general expense of the office will give the portions of such expense applicable to the various lines of business. Of course this method may be modified by taking out of this general expense item such amounts as can be charged direct to lines, and it may be further modified by assigning weights to the transactions of the various lines as it may be demonstrated that they may consume more or less time of the branch office in attending to them. The idea is to consider the transactions on the records of a branch office as symbols of the time spent by the office on the different lines of business. My company does not count endorsement entries other than those for property-damage

and collision, which, of course, fall into the business divisions of "automobile property-damage," "automobile collision," etc.; neither do we count entries made by reason of payroll audits on liability and compensation policies; it is the original entry whether for new business or renewals that is considered, and the payroll audit is simply work done in connection with the policy evidenced by the original entry. The Fidelity and Casualty Company of New York considers all the expenses of a business-getting office as business-getting expense with the exception that a part of the salaries of men concerned with the acquisition of plate glass business who also help in adjusting the claims of this line are charged to "plate glass claim expense": and part of the salaries of our metropolitan office are charged to "Booking," because by reason of proximity to the home office the recording of the business in the metropolitan office saves "Booking," and an adjustment is made between "Business Getting" and "Booking" as respects this kind of work. Our inspectors are paid from the home office, and hence their salaries and expenses are in no wise connected with the work of a branch office.

For the other items of expense, both in the home office and in the field, the following plan is set forth. If the system of pro-rates is designed for immediate use, use payroll of some period (we recommend six months) immediately preceding the period for which pro-rates are sought. If pro-rates are to be used retroactively, measure the work of the year to be analyzed. In either case the following method is submitted.

For each field claim office and for each department of the home office, place the names of all employees,—officers, managers and clerks, both permanent and temporary, who have been employed for all or part of the time period used as a basis, in a vertical column, and against the name of each employee place the actual amount he received in salary during that period. To the right of these two columns place five other columns entitled "Business Getting," "Underwriting," "Inspection," "Booking," and "Claim," and divide each of these five columns into separate subcolumns each one bearing the name of a line of business transacted by the company.

Send these blanks when so prepared to the manager of each field claim office and of each home office department and request him to put against each employee's name in the various subcolumns ratios or per cents (not money-amounts), showing the percentage of the

total time of that employee, which according to his careful judgment the employee spent, in the time-period considered, on the various divisions of expense by lines of business. Of course, the total of these ratios or per cents in each case must equal unity. When these per cents have all been entered, apply them against the salary received by each employee and place the products in the same columns.

Then for *each* field claim office and for *each* home office department, sum up the total salaries paid therein, and the totals appearing in each column showing expense subdivisions, and divide the total for each expense subdivision by the total salaries paid and thus obtain a new set of pro-rates for each field claim office and home office department considered as a whole. Assuming that this pro-rate of *salaries* upon basis of time spent on various subdivisions of expense is an indication of the *expenses other than salaries* of a field claim office or home office department, after charging such items of expense as can be charged direct to an expense subdivision, pro-rate the remainder of expenses by means of the final pro-rate.

Of course the one assigning the individual employee's pro-rates may use data to guide him in the assignment, such as items handled as evidenced by count of cards, claim files, applications, etc., in the various lines of business.

This method, when the pro-rates of a department are applied direct to the total salaries of a department, avoids discrepancies due to the changing of work of an employee, or his transfer from one department to another.

Let us now take the total salaries paid in each home office department and add them all together, and then take the analyses of salaries of all departments (the money-amounts) and add them all together, adding like subdivisions to like. Divide this new total of all salaries paid into the total for expense divisions and we have another set of pro-rates which are to be applied to all salaries of men whose work is not within departments, which is general, such as executive officers, men in the supply department, mail department, etc., and these pro-rates too may be applied to general expenses, which cannot be allocated direct to expense subdivisions.

It should be noted that where a *department* incurs an expense the *department's* pro-rates should be used, but where an expense is incurred for underwriting or claim, etc., generally, pro-rates based upon *division of expense*, no matter in what particular department

incurred, should be employed. As an illustration, in my company liability and compensation underwriting pro-rates *in toto* come from four sources: liability and compensation underwriting department, statistical department, stenographic department, and salaries which are general.

The important thing is to get the items as a basis for pro-rates, and with them before you, their uses in combination are countless, but the basis is uniform and as correct as it appears practicably possible to obtain.

It will, of course, be appreciated that an exhaustive description of the above method could not be made within the limits of this paper. A method has been described which it is believed is founded on good reasoning and capable of being actually employed. It is a method whose use is not prohibitive by reason of expense in connection with it, an important consideration. It may have its faults, but it is believed that trustworthy results are shown by its use. It avoids general ideas and conclusions, and the pro-rates obtained by this approximation to actual conditions as measured by the men in closest contact with the departments they manage produce results which ought to be very close to the cost of conducting the business of each line. By furnishing the various departments of a company with their respective pro-rates, and also with pro-rates for expenses irrespective of departments but according to "expense divisions" it becomes possible to immediately pro-rate every expense item as it comes up for entry upon an "Analysis of Expense" book into which pro-rated amounts are entered as they are incurred or paid, which book if analyses are entered when money is paid may be kept in correct balance with the general cash books of the company. The pro-rating of every item as it comes up for entry in the "Analysis of Expense" book will involve a great deal of multiplication. In order to avoid this the device may be adopted of collecting all items which are to be pro-rated in the same manner in a subsidiary memorandum account, and then when a sufficient number have accumulated, sum them and pro-rate the total accumulated.

We could, of course, have discussed this pro-rating system by means of algebraic symbols, but thought that a more useful method would be an outline, as simply expressed as possible, in terms recognizable by any man connected with casualty insurance.

It should also be stated that some one man or committee should

be in charge of the entire system, so as to avoid conflict of interpretation of expenses, which controlling authority should issue definitions of expense subdivisions to department managers and to whom all should go for decisions on doubtful points. This controlling authority should keep an index of its decisions so as to avoid divergences in method when questions arise from time to time which must be decided.

We recommend a four-place decimal system at least for the pro-rating of accumulated amounts or very large bills concerning many departments, and a two-place decimal system for small expenses in connection with incidental bills which continuously arise. The two-place system is recommended upon the sole ground of practicability.

Some of the forms used by the Fidelity and Casualty Company in connection with its pro-rating system are appended.

THE FIDELITY AND CASUALTY COMPANY OF NEW YORK

MEMORANDUM FOR CLASSIFYING EXPENSE CHARGES

Note:—This form should be filled out and attached to every requisition made on the Cashier's Office for a check covering expenses as distinguished from losses. If a general or a departmental apportionment covers the item, note the amount of the item or the amounts composing the item under the proper heading or headings opposite the department to be charged. If the item is a specific charge against any particular line or lines, note the amount or amounts opposite such lines under the proper heading or headings.

General Headings

Prorate	Underwriting	Claim	Business Getting R. M.	Business Getting G. A.	Business Getting H. O.	Booking	Inspection (Other than Med. or Claim)	General
Agency								
Accident								
Accounting								
S. B. & F. W.								
Bonding								
Burglary								
Claim								
General								
Inspection								
Liability								
Plate Glass								
Statistical								
Stenographic								
M & S %								
CHARGE								
Fidelity								
Surety								
Bank Burg.								
Safe Burg.								
Resd. Burg.								
Resd. Theft								
Store Burg.								
Robbery								
Plate Glass								
Steam-Boiler								
Fly-Wheel								
Work. Coll.								
Emp. Liab.								
Pub. Liab.								
Teams' Liab.								
Elevator								
O. & T. Liab.								
Automobile								
Drug Liab.								
Compensation								
Teams' P. D.								
Auto. P. D.								
Auto. Coll'n.								
Accident								
Instalment A								
Health								
Instalment H.								
Phys. Liab.								
TOTALS								

Indicated by a check (✓) the proper expense subdivision.

EXPENSE SUBDIVISIONS

Commissions	Invest'ns.	Taxes and Fees.	Printing S. & S.	Int. Rev. Stamps
H. O. Salaries	Sundries	Legal Exp.	P'stge, T'phone.	Text & Reference
H. O. Traveling	Rents	Advertising	Expr. and T'gph.	Books.
U. C. & I. Bureaus	Exp. on R'l. Est.	Exch. & Coll. chgs.	Fur., Fix., incl'd g.	
Medical Fees	not taxes	Subscriptions	repairs	

THE FIDELITY AND CASUALTY COMPANY OF NEW YORK

SUPPLY DEPARTMENT MEMORANDUM FOR CLASSIFYING EXPENSE CHARGES

Attached to order No.....

Note—This form must be filled out and attached to every order on the Supply Department for purchasing supplies not in stock. If a general or a departmental apportionment covers the item, note the division of the item in percentage under the proper heading or headings opposite the department to be charged. If the item is a specific charge against any particular line or lines, note the charge in percentage opposite such lines under the proper heading or headings.

General Headings

Prorate	Underwriting	Claim	Business Getting R. M.	Business Getting G. A.	Business Getting H. O.	Booking	Inspection (Other than Med. or Claim)	General
Agency.....								
Accident.....								
Accounting.....								
S. B. & F. W.....								
Bonding.....								
Burglary.....								
Claim.....								
General.....								
Inspection.....								
Liability.....								
Plate Glass.....								
Statistical.....								
Stenographic.....								
M & S %.....								
CHARGE								
Fidelity.....								
Surety.....								
Bank Burg.....								
Safe Burg.....								
Resd. Burg.....								
Resd. Theft.....								
Store Burg.....								
Robbery.....								
Plate Glass.....								
Steam-Boiler.....								
Fly-Wheel.....								
Work. Coll.....								
Emp. Liab.....								
Pub. Liab.....								
Teams' Liab.....								
Elevator.....								
O. & T. Liab.....								
Automobile.....								
Drug. Liab.....								
Compensation.....								
Teams' P. D.....								
Auto. P. D.....								
Auto. Coll'n.....								
Accident.....								
Instalment A.....								
Health.....								
Instalment H.....								
Phys. Liab.....								
TOTALS								

ORDER FOR Printing Stationery Supplies Furniture & Fixtures including repairs Publications