COOPERATIVE FREIGHT BILL AUDITING

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The cost to establish and operate a cooperative freight bill auditing association with a full set of tariffs would range from $116,000 to $132,000 the first year, according to a feasibility study based on 1979 estimates. The costs would range from $96,000 to $107,000 in subsequent years. Advantages cooperatives saw in such an association included savings on fees, better control, specialized auditors, and prompt information on problem areas. Disadvantages included operational costs, lack of qualified auditors, initial capital investment, and disclosure of private information.

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CONTENTS

HIGHLIGHTS

The cost to establish and operate a cooperative freight bill auditing association with a full set of tariffs would range from $116,000 to $132,000 the first year, according to a feasibility study based on 1979 estimates. The costs would range from $96,000 to $107,000 in subsequent operational years. Major options that could be used to finance the operation and distribute the cost among cooperatives include number of claims recovered, total number of freight bills audited, or a percentage of the dollar volume of freight moved.

The advantages of having a freight bill auditing association were, in the opinion of the firms responding, savings on fees, 48 percent; better control, 40 percent; specialized auditors, 32 percent; and prompt information regarding problem areas, 32 percent. Twenty-two percent thought there would be no advantage.

The disadvantages of having a freight bill auditing association were, in the opinion of the firms responding, 49 percent, operating costs; 39 percent, the shortage of qualified auditors; 31 percent, capital investment; and 18 percent, the disclosure of private information. Nineteen percent thought there would be no disadvantage.

Cooperative Freight Bill Auditing

Earl B. Miller

Eldon E. Brooks 1/

INTRODUCTION

Transportation accounts for a substantial part of the costs of operating farm supply and marketing cooperatives. Thus, one suggestion has been for a group of cooperatives to form an association to provide freight bill auditing services. The feasibility of such a coordinated effort and the attitude of the cooperatives toward it are examined in this report.

PROCEDURE

The Cooperative Management Division of USDA's Economics, Statistics, and Cooperatives Service sent an exploratory questionnaire to nine regional cooperatives in 1978 to determine if they could benefit from the development of a cooperative freight bill auditing service. The replies provided the following information: (1) five of the nine firms had their freight bills audited regularly by an outside auditor; (2) freight claims for overcharges developed from the outside audits of those surveyed averaged $136,600 per cooperative in 1976; and (3) four respondents indicated an interest, two indicated no interest, and three wanted more operational information.

The survey showed that the usefulness of such a service was evident; however, additional research was needed to determine if cooperative management would use the program.

A questionnaire, to a stratified random sample of 580 cooperatives, was later followed with letters and telephone calls when needed. Answers were obtained from 445 cooperatives, a 76.6-percent return. Of those respondents, 288 reported that either the study was not applicable, they were not interested, they were out of business, or they had merged with another cooperative. Therefore, only 157 questionnaires were usable.

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COST OF TRANSPORTATION

The need for auditing freight bills depends on the amount of regulated traffic and the number of waybills involved. The number of cooperatives reporting total cost of all transportation and of regulated transportation that could be used for comparative purposes was 142 (table 1). These respondents reported a total transportation bill of about $943 million with almost $679 million of that for regulated transportation. This indicates that about 72 percent of the cost of transportation for those responding was for regulated traffic. Subsequently, there is a potentially high movement that can be checked for errors by the auditing of the freight bills.

About 56 percent of the total cost and 55 percent of the regulated cost of transportation reported were by farm supply cooperatives. However, this predominance of farm supply cooperatives seemed to have little effect on the overall relationship between total cost and regulated cost. This relationship for all types of commodities, excluding farm supplies, showed regulated costs to be 73 percent of total costs. This was only a 1-percent change from the 72-percent when farm supplies were included.

However, among the commodity groups, there was marked difference in this relationship. For example, the costs for regulated shipments compared to total costs were 94 percent for cotton, 91 percent for fruits and vegetables, and 87 percent for grain; however, they were only 42 percent for poultry and 30 percent for dairy cooperatives.

Table 2 reports that 60 percent of the cost for regulated shipments was for rail transportation and 34 percent was for truck shipments. Only 4 percent of the cost for those cooperatives reporting was for barge movement.

Again, the different types of cooperatives differed in modes of transportation used. Cooperatives for farm supplies, poultry, and the combined group of "other" moved the majority of commodities, represented by transportation costs by rail, while cotton, dairy, and fruits and vegetable cooperatives used trucks the most. Grain cooperatives reported a higher percentage of costs by barge than by truck.

Table 1--Cost of transportation, 142 cooperatives, 1977

Cooperative	Reporting	Total cost	Regulated shipments: Cost	Regulated shipments: Total cost
	Number	1,000 dollars	1,000 dollars	Percent
Cotton	7	15,378	14,499	94
Dairy	14	48,174	14,555	30
Fruits and vegetables	14	54,600	49,911	91
Grain	59	173,926	151,441	87
Poultry	5	58,095	24,202	42
Farm supplies	30	531,371	376,758	71
Other	13	61,563	47,519	77
Total or average	142	943,107	678,885	72

Table 2--Cost of regulated transportation by mode of transport, 1977

Cooperative	Reporting	Cost of regulated transportation	Mode of transport			
			Rail	Truck	Barge	Other
	Number	1,000 dollars	Percent			
Cotton	7	14,499	34	66	0	0
Dairy	14	14,555	7	89	1/	4
Fruits and vegetables	14	49,911	19	75	0	6
Grain	59	151,441	88	5	6	1
Poultry	5	24,202	82	18	0	0
Farm supplies	30	376,758	56	39	4	1
Other	13	47,519	64	28	2	6
Total or average	142	678,885	60	34	4	2

1/ Less than 0.05 percent.

However, the cost of regulated shipments by barge or by "other" modes (mostly ocean-going transport) did not exceed 6 percent of total costs for those cooperatives reporting for the study.

Only 131 cooperatives reported the number of freight bills for regulated movement; of those, 127 responses could be used for comparative purposes (table 3). Over 1 million freight bills for regulated transportation were used in the movement of their commodities at a cost of over $637 million. The average cost per freight bill was almost $600 and the average number of freight bills was 8,375 for each cooperative during 1977.

The average number of regulated freight bills per cooperative ranged from 3,089 to 21,884 among the different types of cooperatives and the average amount of transportation cost per freight bill ranged from $332 to $866. Granted these are averages, but they are still good general indicators that cooperatives involved in commodity transportation generate a sizable number of regulated freight bills representing a considerable amount of money. Under these conditions any appreciable number of mistakes on freight bills could be quite costly to a cooperative and would indicate a need for periodic audits of such bills.

AUDITING PRACTICES

Forty-six percent of the cooperatives reported that their freight bills had been audited in 1977 (table 4). An additional 1 percent would probably fall into this category as one respondent that answered "no" indicated that internal audits were conducted and another stated that 1977 freight bills had not been audited but would be later.

The cooperatives reporting audits increased 5 percent between 1973 and 1977. However, those that gave no answers fluctuated between a 1- and 3-percent change over

Table 3--Average cost of transportation per freight bill, 1977

Cooperative	Reporting	Cost of regulated shipments	Freight bills	Average number of freight bills per cooperative	Average cost per freight bill
	Number	1,000 dol.	-----Number-----		Dollars
Cotton	7	14,499	28,065	4,009	517
Dairy	13	14,355	43,289	3,330	332
Fruits and vegetables	13	49,666	105,625	8,125	470
Grain	51	134,541	175,518	3,089	767
Poultry	4	22,216	25,667	6,417	866
Farm supplies	28	374,770	612,755	21,884	612
Other	11	26,994	71,750	6,523	376
Total or average	127	637,041	1,062,669	8,375	599

Table 4--Percentage of freight bills audited by year, 157 cooperatives reporting, 1973-77

Answer	Freight bills audited				
	1977	1976	1975	1974	1973
			Percent		
Yes	46	45	44	41	41
No	53	54	54	56	55
No answer	0	1	2	3	4
Other	1	0	0	0	0
Total	100	100	100	100	100

the 5-year period. The remainder of the change came from those that had not answered the question. In any event, the number of cooperatives that audited or had their freight bills audited remained relatively the same over the 5-year period.

Table 5 reports by type the number of cooperatives whose freight bills were audited in 1977. Dairy, fruits and vegetables, and poultry cooperatives had over 50 percent of their freight bills audited. Cotton, grain, and farm supply cooperatives reported less than 50 percent audited.

Grain shippers tend to use an internal audit rather than one conducted by outside auditors (table 6). The respondents, in some instances, remarked that they ship mostly by rail and do not feel they need an outside audit or that all of the freight bills are prechecked before shipment. In the latter case, this may be sufficient if freight bills are also checked for extensions (mathematical errors). However, if they are not, a simple error in arithmetic could be costly where large shipments are concerned.

The share of freight bills audited for any one cooperative was as low as 5 percent for internal audits and 10 percent for outside audit firms. However, 86 percent of those conducting their own audits and 84 percent of those using outside auditors reported that over 90 percent of their freight bills were audited. Eighty-one percent of self-auditors and 71 percent of those without outside auditors reported 100 percent of freight bills audited.

Claims

Little correlation can be observed between the amount of claims filed and the amount collected as a result of inside audits. The cooperatives reported filing claims totaling $1,959,130 and collecting $2,923,533. There were several reasons that contributed to the contradiction in these two figures. First, 57 of the cooperatives reported internal audits, while 25 reported the amount collected, and

Table 5--Percentage of freight bills audited, by type of cooperative, 1977

Cooperative	Reporting	Freight bills audited		
		Yes	No	Other
	Number	Percent		
Cotton	7	43	57	0
Dairy	17	59	35	1/6
Fruits and vegetables	15	60	40	0
Grain	66	39	61	0
Poultry	5	60	40	0
Farm supplies	34	47	53	0
Other	13	38	54	2/8
Total or average	157	46	53	1

1/ One cooperative reported no audit conducted, but showed internal audit in other data.
2/ The 1977 audit had not been completed.

Table 6--Cooperatives reporting freight bills audited, 1977

Cooperative	Cooperatives reporting audits	Kinds of auditing			
		Internal audit only	Outside audit only	Both internal and outside audit	Total
	Number				
Cotton	3	2	1	0	3
Dairy	10	4	5	2	11
Fruits and vegetables	9	2	4	5	11
Grain	26	20	5	1	26
Poultry	3	1	1	1	3
Farm supplies	16	1	3	13	16
Other	5	2	1	3	6
Total	72	32	19	25	1/76

1/ Includes four cooperatives that reported no audits in 1977 but showed a percentage of their accounts audited.

only 18 reported the amount claimed. Second, 11 cooperatives obviously misunderstood the question and reported the number of claims rather than the amounts claimed.

Nineteen of the firms that conducted internal audits reported no claims filed and 18 reported no collection. Cooperatives reported $82,654 saved due to preaudit of freight bills, in addition to the amount of money received from claims.

Forty-four cooperatives reported having used an outside auditor in 1977. Thirteen of these reported that they had filed claims totaling $112,136, seven reported no claims filed, eight said they did not know how many claims were filed, three gave the number of claims only, one reported 1977 audits were not completed, and twelve did not answer. Twenty-seven respondents reported that they had collected $265,915 in claims and seven said none had been collected.

The amount collected from claims that could be compared to the cost of regulated transportation and the number of freight bills is found in table 7. The amount collected seems insignificant compared with the total cost of regulated transportation, just 0.45 percent, yet this represents over $2 million. It becomes more significant when one sees that this represented $2.86 for each freight bill for all types of shipments and all types of farm and farm-related commodities. Even where the amounts recovered were related to fruits and vegetables and the amount collected was near one-tenth of 1 percent, it represented about $42,000, or 83 cents of each freight bill. The amount collected by farm supply cooperatives equaled $3.54 per freight bill and represented over $1.9 million.

Table 7--Dollar volume from claims compared with cost of regulated transportation and number of freight bills, by 34 cooperatives reporting in 1977 1/

Cooperative	Reporting	Cost of regulated transportation	Freight bills	Collected from claims		
				Amounts	Regulated transportation	Amount per freight bill
	Number	1,000 dollars	Number	Dollars	Percent	Dollars
Fruits and vegetables	7	29,816	50,950	42,341	0.14	0.83
Grain	6	66,752	101,325	176,500	.26	1.75
Farm supplies	14	359,027	543,540	1,921,874	.54	3.54
Other 2/	7	30,769	72,980	52,762	.17	.17
Total	34	486,364	768,745	2,193,447	.45	2.86

1/ Thirteen reported collections from both inside and outside audits.
2/ Three or less cooperatives of any type reporting.

Fees and Service

Freight bill auditors charge a percentage of the amount recovered on claims, usually 50 percent.

Forty-four respondents had their freight bills audited by 45 outside auditors. Thirty, or 65 percent, were charged a fee of 50 percent of recovered claims, and one of the auditors charged 60 percent for additional audits of the same freight bills. Three auditors set fees of 40 percent of recovery, one set a fee of 20 percent, and one charged 10 percent. Two cooperatives reported that they paid a flat monthly fee of $35 and $79, respectively. Others reported that the auditor's fee was a percent of recovery or that they were on a retainer but did not report the amounts.

Longtime association between cooperatives and auditing firms did not seem to be the rule (table 8). Only four auditors had been used by a single cooperative for more than 10 years. Fourteen auditors had been used by a given cooperative between 6 and 10 years and 20 auditors, for 5 years or less. The data indicate that loyalty and longtime association would not be a determining factor in whether a cooperative might participate in the formation of a cooperative auditing firm.

One of the problems with freight auditing firms was that, when errors in billing were found, the auditors did not report where and what the errors were. Thus, the cooperatives could continue to make or overlook the same mistakes. When asked if such errors were reported, management replied that 44 percent of the auditors did report where and what the errors were, 40 percent did not report such errors, and 7 percent did not consistently do so; 9 percent did not answer the question. While a substantial number did report errors to the cooperative, enough did not so as to cause concern that the same errors would continue.

Table 8--Years of service of current auditors, 44 cooperatives reporting, 1977

Years	Auditors
	Number
1 to 5	20
6 to 10	14
11 to 15	2
15 to 20	1
over 20	1
Other 1/	3
No answer	4
Total	2/45

1/ Vague statements; that is, "years," "varies," and the like.
2/ One cooperative used two auditors.

Only 22 percent of these cooperatives reported that they had problems with freight bill auditors. The problem most frequently mentioned was that auditors were slow in returning freight bills. One auditor was even reported to have gone out of business after a period of little action while still holding the cooperative's freight bills. Another stated that the amount of claims filed by the auditor was not known. Any payment of claims goes from the carrier to the audit agency who then pays the cooperative. Another cooperative was concerned with the auditors' lack of interest, that they were not specialized in the cooperative rate area, and that a large number of firms were going in and out of the business.

COOPERATIVES' VIEWS OF AUDIT ASSOCIATIONS

How extensively the subject of cooperative auditing associations has been considered is unknown. Consequently, a series of questions were presented to cooperative management to determine their attitude toward auditing associations, the advantages and disadvantages, the scope of coverage, what functions should be performed, and the willingness of cooperatives to participate.

Advantages

Table 9 indicates the opinion of cooperative management as to the advantages of freight bill auditing associations. About 48 percent stated that there would be a saving on fees. That led all other categories, followed by 40 percent indicating better control by the sponsoring cooperatives. While no reference was made directly to that category comments indicated that many cooperatives were dissatisfied with outside auditors because they did not reveal where losses were occurring. Checks, they said, were frequently received from the auditor with no comments.

Thirty-two percent of the respondents felt it would be advantageous if auditors were more specialized and if problem areas were promptly reported. The latter category coincides with a fact reported in a prior section that 47 percent of the

Table 9--Cooperative management's opinion of advantages and disadvantages of a cooperative freight bill auditing association, 157 cooperatives

Item	Reporting
	Percent
Advantages:	
Savings on fees	48
Auditors more specialized	32
Better control	40
Prompt information regarding problem areas	32
No advantage	22
Other (specify)	4
No answer	4
Disadvantages:	
Capital investment	31
Operating costs	49
Shortage of qualified auditors	39
Disclosure of private information	18
No disadvantages	19
Other (specify)	5
No answer	6

cooperatives stated that their present outside auditor did not report where errors were found, or did so infrequently.

About 22 percent of the respondents replied that there would be no advantage in having a cooperative auditing association; however, only a small percentage gave a reason as to why they thought this to be so. Those few that did comment stated that they could perform their own audits or stated that they shipped only one commodity.

Only three of the respondents that indicated there were "other" advantages actually gave a reason. One suggested that duplicate data could be put on the computer, assuming that the association had a computer. Another thought the auditing firm would have greater knowledge of the products handled by cooperatives and be more responsive to their needs. This could, of course, have been answered in the category "auditors more specialized."

The others who indicated "other" advantages did not give a reason or made such general comments as there must be a good incentive for the auditors or that an outside party has a better insight of innovations. One suggested that each cooperative audit each waybill as it came in. The latter was a single-commodity shipper.

The answers of some cooperatives varied from the average when reported on a basis of individual type of cooperatives (appendix table). The most marked variance occurred among fruit and vegetable cooperatives where more emphasis was placed on auditors being more specialized than on savings in fees. Poultry cooperatives placed equal emphasis on these categories, and 65 percent of the farm supply cooperative officials believed there would be a savings in fees.

Disadvantages

Forty-nine percent of the respondents reporting disadvantages (table 9) cited "operating costs." In the prior discussion on advantages, 48 percent reported a savings in fees as being advantageous. The two would seem to be inconsistent unless there was no duplication of the respondents that answered both questions. Actually, 22 percent of the respondents gave both answers. The most plausible explanation would seem to be that they were distinguishing between the advantage of recovering the total amount of claims filed and the disadvantage of having to pay ongoing expenses of an auditing association, with the possiblity of not having returns from claims cover a commercial auditor's fees.

The second greatest concern to cooperatives was the shortage of qualified auditors, 39 percent, followed by the capital investment required to establish an auditing association, 31 percent.

The shortage of auditors was also mentioned by auditors and former auditors during telephone discussions with the authors. As one auditor explained, the job can be tedious and for a long time competent auditors were often thought of, and paid as, rate clerks. Many left the business and went into some other kind of work and others did not choose to take their place.

The estimated costs of establishing and operating a cooperative auditing association are discussed in a separate section. About 18 percent of the respondents feared the disclosure of private information to other cooperatives operating in the same field. Nineteen percent thought there would be no disadvantages.

Five percent of the respondents indicated that there would be disadvantages other than those categorized. As with the "other" advantages, the statements did not always report specific disadvantages, but were in the nature of general comments. However, specific statements included the following: The member with the most problems would be given the most time; the possibility of some cooperatives' records not being accessible during audit; and the delay time (no other explanation).

Other comments included the following: Enough cooperatives must use the service to make it economical for all; rates and routes should be checked before shipments are made; selection of the right manager is essential; and the quality and dedication of the auditors depend on the compensation they receive. There was also a group which did not think that the cost benefit ratio would justify an association, and other respondents reported being capable of doing their own auditing.

Again, individual types of cooperatives saw disadvantages differently (appendix table). Cotton cooperatives were most concerned with the disclosure of private information, while capital investments concerned poultry cooperatives more than operating costs.

Another marked difference occurred among those who thought there would be no disadvantages. Forty-one percent of the dairy cooperatives and 26 percent of the grain cooperatives thought there would be no disadvantages, while none of the cotton or poultry cooperatives believed that to be true. Especially significant is the 26 percent of grain cooperatives which thought there would be no disadvantages. Also, grain cooperatives usually indicated no need for outside auiting because of the way grain is shipped.

Organization

Cooperative management was asked whether a cooperative auditing association should be organized on a specific or unlimited commodity basis and organized on a national or regional basis (table 10).

Concerning commodities, there was a tendency to favor organization on an unlimited commodity basis. Twenty-eight percent opted for unlimited commodities, while 17 percent favored specific commodities. There was a marked preference for regional organization over national organization. Fifty-four percent favored a regional organization compared with 17 percent who favored a national one.

One firm suggested that the association be set up as a division of an already established public accounting service. Another suggested that it be established on a class and commodity basis nationwide and then divided into regions. Still another thought that the decision on commodities should be determined by need and the scope (national or regional) should be determined by the number participating. One stated that the association should be established on a regional basis but serve only local cooperatives.

When preference of individual types of cooperatives is observed (appendix table), five of the seven categories opted for organization on an unlimited rather than a specific commodity basis but in varying degrees. Poultry cooperatives and those in the "other" category favored a specific commodity basis. In fact, none of the poultry cooperatives favored establishment on an unlimited commodity basis.

Scope

Table 11 shows the services that respondents believed a cooperative auditing association should handle. Freight bill auditing only was the decision of 55 percent. Only 17 percent believed that an auditing association should prorate fuel taxes and 23 percent thought the association should work on permits and licenses. A number of those who indicated that the association should handle some "other" assigments did not specify them and usually indicated that they were not interested in participating in such a venture. One did suggest that such an association should work on tariff revisions.

Table 10--Cooperative management's opinion of organization of cooperative auditing association, 157 cooperatives

How organized	Reporting
	Percent
Specific commodity basis	17
Unlimited commodity basis	28
National basis	17
Regional basis	54
Other (specify)	5
No answer	15

Table 11--Cooperative management's opinion of what a cooperative auditing association should handle, 157 cooperatives

Options	Should handle		Should not handle		No answer	
	No.	Pct.	No.	Pct.	No.	Pct.
Freight bill auditing only	86	55	45	29	26	16
State permits and licenses	36	23	95	61	26	16
Prorated fuel taxes	27	17	103	66	27	17
Other (specify)	5	3	117	75	35	22

Participation

When the respondents were asked if they would like to see a cooperative auditing association formed, 34 percent said yes and 14 percent said no (table 12). However, 49 percent reported that they were undecided, and that they did not have enough information to make a decision.

ESTIMATED COST AND FINANCING OF AN ASSOCIATION

Only broad estimates can be used when trying to determine the cost of establishing and maintaining a freight bill auditing association. For a group of cooperatives with freight bills covering shipments of a single commodity, from a minimum number of origins to a few destinations, the number of tariffs and supplements would be small. But, the opposite would be true for a group of sponsoring cooperatives with freight bills covering shipments of a varied group of commodities, moving by both rail and truck, to and from various points. In this case, a large number of tariffs and supplements would be required.

The same criteria would determine the amount of office space and equipment, number of auditors and office personnel, and general operating costs. The geographical location of the auditing association would affect the cost of rent, the wage scale of auditors and office employees, and the cost of utilities.

Estimated Cost

Table 13 contains an estimate of the cost of establishing a cooperative auditing association and maintaining it for 1 year. The location is in the Midwest, and it would require a complete set of tariffs--rail and truck. The association would audit freight bills only.

The estimated cost for the first year would be from $116,000 to $132,000. 2/ The cost of subsequent years of operation, after removing the initial cost of the

2/ The costs of tariffs, supplements, salaries, telephones, utilities, and the like were determined through discussions with persons presently auditing freight bills, cooperative traffic managers who had at one time been freight bill auditors, and ESCS staff members who had recently lived and worked in the Midwest. The rent was an estimate by the General Services Administration of the average cost for renting office space in Kansas City and the immediate vicinity.

Table 12--Statistics on how many wanted a freight bill auditing association, 157 cooperatives

Answer	Number	Percent
Yes	54	34
No	22	14
Undecided	77	49
No answer	4	3
Total	157	100

Table 13--Estimated cost of establishing and maintaining a cooperative freight bill auditing association for 1 year in Midwest, 1979

Component	Cost of establishing an association	First-year operating costs
	Dollars	
Complete set of rail and truck tariffs	15,000-20,000	0
Supplements at $150 per month	0	1,800
Rent for two 20 feet by 30 feet rooms (1,200 square feet at $8.00 per square foot)	0	9,600
Two freight bill auditors at $25,000-$30,000 per year	0	50,000-60,000
One senior clerk-typist	0	10,000
One junior clerk-typist	0	8,000
Office furnishings	5,000	0
Utilities	0	1,500
Telephone at $250 per month	0	4,200
Postage at $15.00 per day (264 working days)	0	3,960
Social Security at 7.13 percent (if applicable)	0	4,848-5,561
Fringe benefits at 2 percent	0	1,360-1,560
Office supplies and miscellaneous	0	500
Total estimated cost	$20,000-25,000	$96,000-107,000

tariffs and office furnishings, would range from about $96,000 to $107,000. The latter figures do not include any yearly inflationary increase in cost of the individual factors.

Note that if less tariffs were required there would be a drop in the need for office space, staff, and equipment. Conversely, if tasks other than the auditing of freight bills such as the prorating of fuel taxes or the handling of State permits and licenses (both were suggested) were to be performed, the expertise to handle these additional functions would have to be paid for and costs could increase considerably.

Financing

If a group of cooperative officials decided that a freight bill auditing association should be established, the next consideration would be how they would share the cost. This could be established on any number of business related options including the most obvious; that is, the financial burden would be shared equally by the participating cooperatives. This would be especially true for the original outlay of funds to establish the association and to provide operating funds for an initial period of time.

Operational funds beyond the initial period could be related to some phase of transportation cost. In that case, they would have a number of alternatives.

A Percentage of Claims Recovered

This is the system currently used with outside auditors. The percentage must be large enough to cover monthly operations. Regardless of the cost sharing method used, recurring errors would be reported to the cooperatives, and problem areas would be pinpointed. As problem areas were eliminated, the main generators of claims would be extensions. With the system becoming more computerized, even extensions would eventually be less of a problem. The funds available for financing the auditing association would be more directly affected as recovery from claims decreased.

The Total Number of Freight Bills Audited

Here, financing would need to be budgeted; it would not come from credits received. The funding of the auditing association would not be directly affected as the returns from recovered claims decreased. However, it would be difficult to have a fair distribution of costs among the sponsoring cooperatives unless they were basically the same type, using essentially the same modes of transportation.

A Percentage of the Dollar Volume of Regulated Freight Moved

This method of funding would have the same stability of funds as the one using the total number of freight bills audited as a basis, but it would be somewhat easier to determine a fair share of funding among the sponsoring cooperatives when there were different types in the group.

Regardless of the method of funding, if the association's only function were to audit freight bills, there could come a time, as errors in waybills were reduced, when it would be practical to reduce the staff or even eliminate the association. This of course would be the best possible situation as the association would have accomplished its purpose.

RECOMMENDATIONS

We recommend that all cooperatives shipping by regulated transportation have some type of audit of freight bills. The cooperatives may want to set a minimum level and audit only bills over a certain amount or only those bills where a potential problem exists.

If cooperative officials think that no audit is necessary due to the nature of their transportation and the way they are billed, and if they preaudit freight bills, they should be especially alert to extensions (mathematical errors).

We also suggest that cooperative management consider coordinating the auditing of freight bills. No precedent exists in establishing a cooperative auditing association. But, in view of these findings, it would seem feasible that if one were to be established that it be done by a group of cooperatives within a limited distance who ship similar commodities and have similar problems. This would mean a limited investment in tariffs, floor space, and staff.

If a small regional association were successful, expansion could be made at a later date and as the need arose. Expansion could be made by enlarging the boundaries of the operating association and the inclusion of new members, the merger of two or more regional associations, or the inclusion of new members with different commodities to form a more heterogeneous group of shippers.

The establishment and operating costs given in this study are estimates. Specific costs must be established for the exact location selected and, as costs are not static, consideration must be made for their increase over time.

APPENDIX

Cooperative management's opinions of a cooperative freight bill auditing association, by type of cooperative

Opinions	Cotton	Dairy	Fruits and vegetables	Grain	Poultry	Farm supply	All other	Total
	Cooperative responding							
	Number							
Number reporting	7	17	15	66	5	34	13	157
	Percent							
Advantages:								
Savings on fees	57	47	23	44	60	65	38	48
Auditors more specialized	14	24	33	26	40	54	15	32
Better control	43	35	13	44	60	50	23	40
Prompt information regarding problem areas	43	18	27	32	60	35	31	32
No advantage	29	29	20	20	20	12	54	22
Other	0	0	13	1	0	9	0	4
No answer	0	6	13	6	0	0	0	4
Disadvantages:								
Capital investment	43	18	33	27	60	38	23	31
Operating costs	57	47	53	39	40	53	46	49
Shortage of qualified auditors	29	12	40	39	20	56	38	39
Disclosure of private information	71	6	33	14	0	18	23	18
No disadvantages	0	41	0	26	0	6	31	19
Other	14	6	27	2	0	3	0	5
No answer	14	6	4	8	0	0	8	6
How organized:								
On a specific commodity basis	14	6	20	12	40	21	38	17
On an unlimited commodity basis	43	35	27	24	0	35	23	28
On a national basis	29	18	40	9	20	21	15	17
On a regional basis	14	47	33	64	80	59	31	54
Other	0	6	13	3	0	9	0	5
No answer	14	12	20	20	0	6	15	15

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