

Relative Efficiencies Of Single-unit and Multiple-unit Cooperative Elevator Organizations

By

ADLOWE L. LARSON

and

HOWARD S. WHITNEY

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Oklahoma A. & M. College, Stillwater

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Which Organization Is Better? That Depends on What Members Want.

Farmers' elevator associations, in planning their operations for greatest efficiency, need to know whether single-unit or multiple-unit elevators do the better job of marketing wheat. The study reported in this bulletin was made in response to requests for information on that subject.

The results of the study are presented in such a way that board members, managers and members of cooperative elevator associations can use them to evaluate their own situation. By studying the tables and filling in their own data, they will have a basis for deciding which type of organization better suits their desires.

The study of existing associations of both types showed that:

- As they are now operating, there is almost no difference in their costs.
- Differences do exist when each type operates with the same building, equipment, and other facilities.
- Which type of organization is the more desirable depends on what services the members want. There is no one answer to fit all cases.

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Introduction

THE PROBLEM

Marketing Oklahoma wheat is a job of major importance to the State's agriculture. It begins at the hundreds of local elevators where farmers deliver their wheat for storage and for sale. Important among these are approximately one hundred farmers cooperative elevator associations. Most of these are single-unit cooperative elevators, where there are facilities for handling grain and providing other services at one point only. There are, however, several multiple-unit cooperative elevator associations. These associations operate facilities at several different points, with all facilities under one general manager and one board of directors.

The problem investigated in this study was: Which of the two types of organizations is the more efficient, the single-unit or the multiple-unit? The comparison was based on the cost of providing services, since practically all savings of cooperative organizations ultimately are returned to the members in proportion to patronage. In other words, since the cooperative provides

services on a cost basis, in the long run a comparison of the expenses of these two types of organizations will show which is preferable from the point of view of return to farmer.

MAJOR CONCLUSIONS

The comparison of existing single and multiple-unit elevators showed that the costs of operations were approximately the same. There is this major limitation to the comparison of existing elevators — they may have differences in the amount of facilities, in their type, and in their age. In other words, a significant difference in costs which might exist in the two types of organizations may be hidden by these elevator differences.

There are, however, real differences when associations having like characteristics are compared. These differences in favor of the multiple organizations become most apparent when the multiple does not provide all services at all points continuously throughout the year. For example, the advantage increases as (1) sideline sales are carried on only at the headquarters point and (2) the

elevator stations out-side the headquarters point are open just seasonally—as a three-months summer period.

There is no one choice—single or multiple. The choice depends mainly upon the services wanted by the cooperative members.

PROCEDURE

Detailed cost studies were made of each of two groups of single-unit elevator organizations, one of five and the other of three associations, and of three multiple-unit organizations. Comparisons were then made between the costs of the single and the multiple-units as

they were operating in the years 1946 to 1948.

So that a comparison could be made between single-unit and multiple-unit organizations, having similar types of construction and like depreciation, organizational models were designed of a single-unit and a multiple-unit. The structures of these models as well as their costs were based upon the many relationships found in the comparisons of the elevators as they were actually operating. It is the comparison of costs in this portion of the study which shows the advantages one type of organization has over the other.

Costs Under Existing Conditions

This section is concerned with existing differences in multiple and single-units in the period 1946 through 1948. Data are based on the units operating as they were then without any corrections for differences in size, in age of equipment, or in type of facilities.

CHARACTERISTICS OF THE ASSOCIATIONS

Location

The cooperatives used in the study were selected from each of the major wheat areas of Oklahoma. One multiple-unit organization was in the north-west portion of the State, the second in the north central area, and the third in the south central portion. The single-unit elevators were in two clusters, one located in the north central and the other in the south central part of Oklahoma. Therefore comparisons could be made with a reasonable assurance that general conditions under which the organizations operated were approximately the same.

Commodities, Services and Facilities

These cooperatives handled both

grains and sidelines, as is generally true of most cooperative elevators in Oklahoma. Practically all of the grain handled was wheat, although small amounts of other grains were handled, particularly by the multiple organizations. The different kinds of sidelines handled included feeds and seeds, petroleum products, cream and poultry products, and various farm and household supplies. The number of sideline products handled by multiple-units was considerably greater than the number handled by the single-units.

Several services were provided in the handling of wheat and sidelines. Wheat services included merchandizing of wheat for the farmer, storage of wheat (for just a few days or a year or more), and cleaning and treating of seed wheat. Sideline operations included the purchasing of products for farmers, the selling of some products of minor importance, and the provision of a number of services in connection with carrying on these transactions: For example, petroleum products were trucked to the farm, eggs graded, feeds were ground and mixed for farmers, and farm and

household appliances were installed and serviced.

The facilities of these cooperative associations differed greatly. Elevators were of reinforced concrete construction, wood crib or tile. Warehouses were of different construction and sizes. Petroleum facilities ranged from a small bulk tank to a complete service station. The facilities of multiple-unit organizations were generally of better quality than those of the single-unit organizations.

Size

Elevator *capacity* varied considerably among the single-unit, the multiple-units, and also among the stations making up a multiple-unit (Table 1). The average capacity of the stations making up the multiple-units was almost identical to the average capacity of the single units—81,500 bushels for the multiple stations as compared with 83,750 bushels. Among these multiple-unit stations, however, the range in capacity was from 7,000 bushels to 260,000 bushels.

Several measures of *volume* show the relative size of multiple-units as compared with single-units. Total sales of the entire organization were 4.8 times greater for multiple-unit cooperatives than for single-units, wheat sales 4.4 times greater, and sideline sales 8.1 times greater. A major difference in the data is the fact that the ratio of sideline sales to wheat sales was much greater for multiple than for single-units.

The only data permitting a comparison of physical quantities of products handled by these organizations were the amounts of wheat handled. The amount of wheat handled by the average multiple-unit was 5.2 times the amount handled by the average single-unit—not much different from the relative amounts of wheat sales.

Multiple-units had a greater invest-

ment per dollar of sales than did the single-units. For example, total assets of multiple-unit organizations were 6.1 times those of single-unit organizations and total sales were 4.8 times greater. Helping explain this is the fact that the fixed assets of multiple-units were 7.8 times those of single-units.

COST DIFFERENCES

The following three sections show differences in costs existing between multiple-unit and single-unit organizations. The first section is concerned with differences in total cost, the significance of individual cost items, and with differences in unit costs. The succeeding two sections show differences in departmental costs and in fixed and variable costs.

Total Cost

The average total cost of multiple-unit organizations was 6.4 times the average cost of the single-unit organization—\$135,451.32 as compared with \$21,292.49 (Table 2).

SIGNIFICANCE OF INDIVIDUAL ITEMS

The sizes of individual cost items expressed in terms of percentages of total expenses, were not greatly different in the two types of organizations. The expense for salaries and wages was by far the largest in both the multiple and single organizations—almost 51 percent for multiple-unit elevators and slightly over 46 percent for single-unit organizations.

The rank of different expenditures was almost the same for the two groups. The major point of difference was in taxes, which were the fourth largest expense for the multiple organizations as compared with seventh for the single-units. This may be explained principally by the fact that multiple-unit organizations have larger inventories and

Table 1.—Capacity, Volume and Investments of Existing Units Studied; 1946-1948.

Items	Average	Range		
Capacity of Elevators				
Single units	83,750 bu.	30,000	—	140,000 bu.
Multiple units	489,000 bu.	139,000	—	781,000 bu.
Volume				
Single units				
Wheat handled	331,953 bu.	252,569	—	412,685 bu.
Wheat sales	\$ 599,590.03	\$ 467,406.97	—	\$ 735,650.54
Sideline sales	\$ 86,544.84	\$ 16,556.00	—	\$ 202,895.41
Total sales	\$ 686,134.87	\$ 554,244.07	—	\$ 809,158.93
Multiple units				
Wheat handled	1,726,340 bu.	1,173,117	—	2,316,684 bu.
Wheat sales	\$2,610,467.38	\$1,935,334.15	—	\$3,350,401.55
Sideline sales	\$ 699,439.58	\$ 556,625.23	—	\$ 947,227.50
Total sales	\$3,309,906.96	\$2,529,800.17	—	\$4,297,629.05
Investment				
Single units				
Total assets	\$ 88,944.25	\$ 64,806.54	—	\$ 131,646.72
Fixed assets	\$ 35,672.37	\$ 20,446.54	—	\$ 85,590.94
Multiple units				
Total assets	\$ 545,486.19	\$ 412,403.67	—	\$ 678,920.79
Fixed assets	\$ 279,059.61	\$ 164,501.65	—	\$ 394,305.18

Table 2.—Total Expense by Expense Items for Existing Units Studied; 1946-1948.

Items	Amount (dollars)	Percentage of total expense
Single unit		
Salaries and wages	9,849.38	46.26
Depreciation	1,966.39	9.24
Interest	2,947.38	13.84
Insurance and bonds	1,215.23	5.71
Taxes	886.08	4.16
Utilities	660.99	3.10
Telephone and telegraph	177.14	.83
Repairs and supplies	1,594.79	7.49
Advertising	216.53	1.02
Truck expense	432.10	2.03
Administrative and selling expense	1,346.48	6.32
Total expense	21,292.49	100.00
Multiple unit		
Salaries and wages	68,971.00	50.92
Depreciation	12,359.84	9.12
Interest	18,549.50	13.70
Insurance and bonds	6,177.59	4.56
Taxes	6,954.83	5.13
Utilities	3,720.59	2.75
Telephone and telegraph	1,521.98	1.12
Repairs and supplies	6,552.40	4.84
Advertising	1,705.24	1.26
Truck expense	2,757.39	2.04
Administrative and selling expense	6,180.96	4.56
Total expense	135,451.32	100.00

**Table 3.—Average Total Expenses of Existing Units Studied;
Per Dollar of Total Sales, 1946-1948.**

Items	Single unit	Multiple unit
	(cents)	(cents)
Total expense	3.10	4.09
Salaries and wages	1.43	2.08
Facility and inventory expense	.60	.77
Interest	.43	.56
Operational expenses	.64	.68

relatively larger investments in fixed assets.

DIFFERENCES IN UNIT COSTS

Cost per dollar of sales was approximately one-third higher in the multiple-unit cooperative elevator association than in the single-unit elevator (Table 3).

To see how these expenditures varied between the two types of associations, the expense items were separated into four groups as shown in Table 3. The first group contains all salaries and wages. Facility and inventory expense includes depreciation, insurance and bonds, and all taxes. Interest is not the actual interest paid by the association but is rather a calculated interest based upon the different types of capital necessary and upon the interest rates of the Wichita Bank for Cooperatives. These total investments were divided into three types of capital: physical facility, operating, and commodity. To secure the interest expense the amount invested in physical facilities was multiplied by 4 percent, operating capital by 3 percent, and the amount invested in commodities by 2 1/4 percent. These were the current interest rates on loans made by the Bank for Cooperatives during the period under study. Operational expenses included such expenses as repairs and supplies, utilities, telephone and telegraph, advertising, truck expense, and administrative and selling costs.

The unit expenses per dollar of sales were higher for multiple organizations than for single unit organizations. Particularly was the difference greater in salaries and wages where multiple-unit expenses were almost one-half again as great as single-unit expenses. Facility and inventory expense were almost one-third greater for the multiple than for the single-unit. The same was true for interest.

Departmental Costs

The expenses of both the single and multiple-unit organizations were divided into two departmental groups, wheat and sidelines, as shown in Table 4. In the single-units, 55 percent of expenses were for wheat (marketing, storage, and other services). For the multiple organizations, wheat expenses accounted for 47 percent of the total. A major reason for this difference is the greater emphasis by multiple-unit organizations on sideline activities. Single-unit elevator associations have an advantage in the handling of wheat, while multiple-units have a slight advantage in the handling of sidelines. It is quite possible that the higher expenses for multiple organizations in wheat handling are a result of more costly facilities. The advantage they might have in sideline operations is likely a result of lower costs permitted by larger volume operation.

UNIT COSTS OF HANDLING WHEAT

Wheat expenses per bushel of wheat handled were 3.55 cents for the single-unit group and 3.65 cents for the multiple-unit.* Sizes of the individual cost items did not vary much between the two groups.

Total wheat expenses per dollar of wheat sales were approximately one-fourth larger for multiple-unit organizations than for single-unit organizations. The expense per dollar of total sales was uniformly higher for the multiple among the four expense groups except in the case of interest where the expense was approximately the same.

UNIT COSTS OF HANDLING SIDELINES

Sideline sales are decidedly more costly to handle than are wheat sales. Sideline expenses were 10.99 cents per dollar of sideline sales for single units and 10.35 cents for multiple units. Similar expenses for wheat sales were 1.96 cents and 2.42 cents, respectively.

No one expense item is responsible for the higher cost of handling sidelines. In the main, sidelines cannot be handled in a mechanical manner such as wheat. Particularly does this mean additional cost for labor, and also extra cost for general merchandizing activities. In the multiple-units, the labor cost per dollar of sidelines was approximately 5 times the labor cost for handling wheat sales; while in the single units it was approximately seven times greater. Facility and inventory expenses range from three to four times greater for sidelines than for wheat. The same is true for interest. In the case of operational expenses, costs

per unit of sales were approximately seven times greater for the single-unit sideline expenses than for wheat expenses and about three and one-half times greater in the case of the multiple-units.

Of the first three groups of expenses, those for the multiple-unit organizations are slightly higher for salaries and wages and for interest. In the single-unit, facility and inventory expense were slightly higher. In the case of the fourth expense group, operational expense, there is an appreciable difference. The operational expenses of the single-unit organizations were 2.53 cents as compared with 1.57 cents for the multiple-unit organizations. Three cost items of this group showing greatest differences are (1) repairs and supplies, (2) administrative and selling expenses and (3) truck expense.

Fixed and Variable Expenses

Some expenses remain almost fixed with the passage of time, while others change quickly in amount from one time to another. An example of the former is taxes and one for the latter is part-time labor. For very short periods of time approaching just an instant, all costs tend to become fixed. On the other hand over long periods of time all costs tend to become variable; that is, they can be changed. The criterion for determining whether costs were fixed or variable in this study was whether or not the cost extended for a year or more. (Appendix B). Those which extended for a year or more were classified as fixed and those which did not last that long as variable.**

The shares of the total expenses

*These figures are secured by dividing the wheat expenses by the number of bushels of wheat handled by the Association. This is not necessarily equal to the number of bushels sold in any particular year inasmuch as there may be some carry-over by the farmer or by the elevator from year to year. However, it is a very close approximation to the number of bushels actually merchandised.

**Adlowe L. Larson, "The Fixity Gradient: A Tool for Fixed and Variable Cost Analysis," *Journal of Farm Economics*, Vol. XXVIII (Aug. 1946), pp. 825-834.

Table 4—Unit Expenses for Wheat and Sidelines for Existing Single and Multiple Unit Organizations Studied; 1946-1948.

Items	Single unit			Multiple unit				
	Total	Wheat	Sidelines	Total	Wheat	Sidelines	Sidelines	
	(cents per dollar)	(cents per bushel)	(cents per dollar)	(cents per dollar)	(cents per bushel)	(cents per dollars)	(cents per dollar)	
Salaries and wages	1.43	1.49	.83	5.65	2.08	1.63	1.08	5.85
Facility and inventory	.60	.77	.42	1.76	.77	.82	.47	1.63
Depreciation	.29	.38	.21	.82	.37	.39	.26	.81
Insurance and bonds	.18	.23	.13	.51	.19	.20	.13	.40
Taxes	.13	.16	.08	.43	.21	.23	.08	.42
Interest	.43	.61	.34	1.05	.56	.55	.36	1.30
Operational	.64	.68	.37	2.53	.68	.65	.51	1.57
Utilities	.10	.11	.06	.34	.11	.12	.15	.22
Telephone and telegraph	.02	.04	.02	.04	.05	.04	.03	.11
Repairs and supplies	.23	.26	.14	.84	.20	.21	.14	.41
Advertising	.03	.03	.02	.12	.05	.02	.02	.18
Truck expense	.06	.01	.01	.50	.08	.06	.04	.26
Administrative and selling expense	.20	.23	.12	.69	.19	.20	.13	.39
Total expense	3.10	3.55	1.96	10.99	4.09	3.65	2.42	10.35

Table 5.—Fixed and Variable Expenses of Existing Single Unit and Multiple Unit Organizations Studied; 1946-1948.

Items	Single unit					Multiple unit				
	Total (Dollars)	Fixed (Dollars)	Percent- age of expense fixed	Variable (Dollars)	Percent- age of expense variable	Total (Dollars)	Fixed (Dollars)	Percent- age of expense fixed	Variable (Dollars)	Percent- age of expense variable
Total expense	21,292.49	13,660.49	64.1	7,632.00	35.9	135,451.32	80,776.95	67.7	54,674.37	32.3
Salaries and wages	9,849.38	6,176.80	62.7	3,672.58	37.3	68,971.00	35,855.84	52.0	33,115.16	48.0
Facility and inventory	4,067.70	3,625.88	89.1	441.82	11.9	25,492.26	23,259.34	91.3	2,232.92	8.7
Depreciation	1,966.39	1,966.39				12,359.84	12,359.84			
Insurance and bonds	1,215.23	911.43		303.80		6,177.59	4,633.20		1,544.39	
Taxes	886.08	748.06		138.02		6,954.83	6,266.30		688.53	
Interest	2,947.38	2,070.62	70.2	876.76	29.8	18,549.50	13,947.42	75.2	4,602.08	24.8
Operational	4,428.03	1,787.19	40.4	2,640.84	59.6	22,438.56	7,714.35	34.4	14,724.21	65.6
Utilities	660.99	132.20		528.79		3,720.59	744.12		2,976.47	
Telephone and telegraph	177.14	44.28		132.86		1,521.98	380.50		1,141.48	
Repairs and supplies	1,594.79	442.07		1,152.72		6,552.40	1,965.73		4,586.67	
Advertising	216.53	108.26		108.27		1,705.24	852.62		852.62	
Truck expense	432.10	108.02		324.08		2,757.39	689.34		2,068.05	
Administrative and selling expense	1,346.48	952.36		394.12		6,180.96	3,082.04		3,098.92	

the differences listed above were either eliminated or controlled.

CONSTRUCTION OF MODEL ORGANIZATIONS

Method of Construction

Models were so set up as to make them typical of single-units and multiple-units now being built in the state. Their determination was based upon the series of detailed studies summarized in the previous section, as well as upon earlier Oklahoma wheat marketing investigations and upon recommendations from workers in cooperative wheat marketing in Oklahoma. The information obtained from these sources was used to determine for each model, the volume of operation, size of labor force, services performed, and products handled. Following this, operating patterns were formed and costs determined and allocated.

Description of Models

Two general types of models were set up (Table 7). The first was the single-unit which merchandizes and stores grain in addition to providing sideline products and services. The second was the multiple-unit which operates facilities at five points. For the multiple-unit type, three models fitting three different operating conditions were set up. In the first handling of grain and sidelines was carried on at all five points throughout the year.

In the second each of these stations operated throughout the year but sidelines were handled only at the central office station. In the third case wheat and sidelines were handled throughout the year at the central station and wheat was handled seasonally (three months) at the remaining four stations.

ANALYSIS OF THE MODELS

Cost comparisons were made in three case studies in which the operations of the single-unit organizations are compared with the operations of each of the three multiple-unit models. As in the analysis of existing associations, comparisons between the single-units and the multiple-units are based upon total costs, departmental costs, and fixed and variable costs. Individuals or organizations making comparisons of their own type of operation with another need to consider their own organization and cost structure along with the case studies presented here.

Case I: Multiple Stations With Sidelines

In Case I the operations of the model single-unit elevator are compared with those of the model multiple-unit in which wheat operations are carried on throughout the year at all of the stations and where each of the stations also carries on sideline operations. Total sales of the multiple-unit were over six times those

Table 6.—Fixed and Variable Expenses Per Dollar of Sales by Expense Groups for Existing Organizations Studied; 1946-1948.

Groups	Single unit			Multiple unit		
	Total	Fixed	Variable	Total	Fixed	Variable
	(cents per dollar of sales)					
Total expense	3.10	1.99	1.11	4.09	2.44	1.65
Salaries and wages	1.44	.90	.54	2.08	1.08	1.00
Facility and inventory	.59	.53	.06	.76	.70	.06
Interest	.43	.30	.13	.56	.42	.14
Operational	.64	.26	.38	.69	.24	.45

Table 7a.—Description of Model Elevator Organizations.

	Single unit	Multiple unit		
		Case I	Case II	Case III
Stations:				
Number	1	6 (1 central 5 Stations)	Same as Case I	Same as Case I
Major facilities			Same as Case I	Same as Case I
Office & Scales	1 — \$10,000	1 — \$20,000 5 — \$10,000	Same as Case I	Same as Case I
Wheat facilities			Same as Case I	Same as Case I
Elevators	1 — 150,000 bus. @ \$93,000	1 — 300,000 bus. @\$156,000 5 — 100,000 bus. @\$ 72,000	Same as Case I	Same as Case I
Cleaner		1 — \$ 9,000	Same as Case I	Same as Case I
Sideline facilities			Same as Case I	Same as Case I
Merchandise warehouse	1 — \$ 10,000	1 — \$ 20,000 5 — \$ 7,000	Same as Case I	Same as Case I
Bulk petroleum			----	----
Truck	1 — \$ 4,250	5 — \$ 4,250	----	----
Tank	1 — \$ 3,200	5 — \$ 3,200	----	----
Pump	1 — \$ 200	5 — \$ 200	----	----
Petroleum station	----	1 — \$ 28,000	Same as Case I	Same as Case I
Farm supply store	----	1 — \$ 20,000	Same as Case I	Same as Case I
Produce station	----	1 — \$ 10,000	Same as Case I	Same as Case I
Volume				
Total sales	\$745,000	\$4,650,000	\$4,558,315	\$4,327,065
Wheat				
Bushels handled	350,000	2,000,000	2,000,000	1,875,000
Sales	\$650,000	\$3,700,000	\$3,700,000	\$3,468,750
Sideline sales	\$ 95,000	\$ 950,000	\$ 858,315	\$ 858,315
Investment				
Current assets	\$ 34,000	\$ 150,000	\$ 141,000	\$ 141,000
Other assets	17,000	115,000	115,000	115,000
Fixed assets	122,650	757,750	682,250	682,250
Total assets	173,650	1,022,750	938,250	938,250

Table 7b. — Labor Force of Model Elevator Organizations.

	Single unit	Multiple unit		
		Case I	Case II	Case III
Labor force				
Management	1 Manager \$3,200	1 Manager \$4,800 1 Bookkeeper \$3,200 1 Assistant Bookkeeper \$2,800 1 Clerk \$2,100 Central	Same as Case I	Same as Case I
Other regular	1 Elevator & warehouse \$2,100 1 Petroleum \$2,100	5-Elevator, Cleaner, Warehouse 2-Farm supply 4-Gas stations 2-Produce stations Stations 5 Elevator & warehouses \$2,400 5 Petroleum bulk \$2,100	(1-\$2400 (4-\$2100 (1-\$2400 (1-\$2100 (1-\$2400 (3-\$2100 (1-\$2400 (1-\$2100 5—Elevator \$2,400	Same as Case I 5—\$600 each for 3 months
Extra labor	\$600	Central—\$1,800 Station—5—\$540	Same as Case I Same as Case I	Same as Case I Same as Case I

of the single-unit. Wheat sales were less than six times as great, while sideline sales were ten times as great, for the multiple-unit as for the single-unit.

TOTAL COSTS

Total expenses for the multiple-unit were \$176,625.50 as compared with \$25,469.75 for the single-unit or approximately 6.9 times greater (Tables 8, 9, and 10). Among the four groups of expenditures making up the total cost there are marked differences from this ratio.

Comparisons of total costs on the basis of cents per dollar of total sales reveal marked differences between the single and multiple-unit operations. Total expenses per dollar of total sales for the multiple-unit were 1.1 times greater than for the single-unit—3.80 cents as compared with 3.42 cents (Tables 11 and 12). Differences greater than this, however, were found in the comparisons of group expenditures (Table 13).

DEPARTMENTAL COSTS

Comparisons of costs by departments between the single and multiple-unit organizations are based upon unit costs such as cents per bushel handled and cents per dollar of sales. Total wheat expenses, per bushel and per dollar of sales, were slightly higher for the multiple-unit than for the single-unit model organizations. For sideline sales multiple-unit costs were considerably less.

Wheat expenses per unit were just slightly higher for the multiple than for the single-unit—4.40 cents per bushel for the multiple-unit and 4.32 cents for the single-unit (Tables 11 and 12). There were two expense groups where the sizes of expenses were appreciably different. One was salaries and wages where the expenses were 15 percent higher for multiple than for the single-units when compared either as cents per

bushel handled or cents per dollar of total sales (Table 13). The other group was operational expenditures which were 24 percent less for the multiple-unit organization than for the single-unit organization.

The relatively higher cost of the multiple-unit for salaries and wages may be accounted for mainly by the higher wage rates allowed for them as compared with the single-unit organizations. This condition is in line with those actually existing in the country. It is influenced to a much lesser degree by the actual amount of man hours set up for the multiple as compared with the single-unit, which results perhaps in the somewhat better service in the multiple than in the single. Extra service may be an inherent characteristic of the multiple which cannot be separated from its operation but which may bring a slightly higher labor cost.

The lower operational expenses for the multiple as compared with the single result mainly from the fact that practically all the operational expense items with the exception of repairs and supplies were lower per unit handled for the multiple than for the single.

Sideline expenses per dollar of sales were 14 percent less for the multiple-unit organization than for the single-unit organization—9.33 cents per dollar of sideline sales as compared with 10.90 cents. Salaries and wages were slightly higher for the multiple than for the single-unit. Much less for the multiple were facility and inventory expense (15 percent less), interest (41 percent less), and operational expenses (28 percent less). Very likely the first two of these three lower amounts were a result of making more intensive use of facilities on the part of the multiples. It is possible that the lower operational expenses of the multiple were a result of a fuller use of the cost items included.

**Table 8.—Costs of Model Single Organization by Expense Items.
(Dollars)**

Expense item	Total expense	Wheat expense	Sideline expense	Fixed expense	Variable expense
Salaries and wages	8,000.00	3,850.00	4,150.00	5,600.00	2,400.00
Depreciation	3,945.00	2,160.00	1,785.00	3,945.00	-----
Insurance and bonds	1,500.00	1,075.95	424.05	1,125.00	375.00
Taxes	1,570.00	1,252.25	317.75	1,522.00	48.00
Interest	6,364.75	4,455.32	1,909.43	5,528.50	836.25
Utilities	650.00	600.00	50.00	-----	650.00
Telephone and telegraph	165.00	132.00	33.00	41.25	123.75
Repairs and supplies	1,200.00	660.00	540.00	330.00	870.00
Advertising	175.00	87.50	87.50	87.50	87.50
Truck expense	600.00	-----	600.00	150.00	450.00
Administrative and selling expense	1,300.00	845.00	455.00	1,040.00	260.00
Total expense	25,469.75	15,118.02	10,351.73	19,369.25	6,100.50

**Table 9.—Case I: Costs of Model Multiple Organization by Expense Items.
(Dollars)**

Expense item	Total expense	Wheat expense	Sideline expense	Fixed expense	Variable expense
Salaries and wages	68,400.00	25,300.00	43,100.00	39,600.00	28,800.00
Depreciation	26,495.00	13,070.00	13,425.00	26,495.00	-----
Insurance and bonds	7,500.00	4,907.50	2,592.50	5,625.00	1,875.00
Taxes	13,828.00	8,314.00	5,514.00	12,596.80	1,231.20
Interest	37,652.50	26,356.75	11,295.75	33,070.00	4,582.50
Utilities	3,750.00	2,437.50	1,312.50	-----	3,750.00
Telephone and telegraph	1,500.00	750.00	750.00	375.00	1,125.00
Repairs and supplies	6,500.00	3,900.00	2,600.00	1,787.50	4,712.50
Advertising	1,000.00	250.00	750.00	500.00	500.00
Truck expense	5,000.00	-----	5,000.00	1,250.00	3,750.00
Administrative and selling expense	5,000.00	2,750.00	2,250.00	4,000.00	1,000.00
Total expense	176,625.50	88,035.75	88,589.75	125,299.30	51,326.20

Table 10.—Ratios of Multiple Unit to Single Unit Expenses by Expense Groups for Model Organizations.

Expense group	Case I	Case II	Case III
Salaries and wages	8.6	7.2	6.1
Facility and inventory	6.8	5.4	5.3
Interest	5.9	5.4	5.4
Operational	5.6	4.7	4.6
Total	6.9	5.9	5.5

Table 11.—Expenses Per Unit for Model Single Organization by Expense Groups.

Expense group	Total	Wheat		Sidelines
	(cents per dollar of total sales)	(cents per bushel handled)	(cents per dollar of wheat sales)	(cents per dollar of sideline sales)
Salaries and wages	1.07	1.10	.59	4.37
Facility and inventory	.94	1.28	.69	2.66
Interest	.86	1.27	.69	2.01
Operational	.55	.67	.36	1.86
Total	3.42	4.32	2.33	10.90

Table 12.—Case I: Expenses Per Unit for Model Multiple Organization, by Expense Groups.

Expense group	Total	Wheat		Sidelines
	(cents per dollar of total sales)	(cents per bushel handled)	(cents per dollar of wheat sales)	(cents per dollar of sideline sales)
Salaries and wages	1.47	1.27	.69	4.54
Facility and inventory	1.03	1.31	.71	2.27
Interest	.81	1.32	.71	1.19
Operational	.49	.50	.27	1.33
Total	3.80	4.40	2.38	9.33

Table 13.—Case I: Ratio of Multiple to Single Per Unit Expenses by Expense Groups.

Expense group	Total sales	Wheat		Sideline sales
		Bushels handled	sales	
Salaries and wages	1.37	1.15	1.15	1.04
Facility and inventory	1.09	1.03	1.03	.85
Interest	.95	1.04	1.04	.59
Operational	.89	.76	.76	.72
Total	1.11	1.02	1.02	.86

FIXED AND VARIABLE COSTS

A comparison of fixed and variable costs shows the opportunities which an organization has to make adjustments in its cost structure over a period of time. To the extent that costs are fixed there is little chance for adjustment. With a high share of variable costs there is an opportunity for quick adjustment of them, such as might be desirable with a sharp decline in volume of products handled. Expenses of the multiple organization were less fixed than those of the single-unit organizations—71 percent as compared with 76 percent (Table 14). This was mainly a result of the difference existing in salaries and wages.

This higher share of fixed expenses for salaries and wages on the part of the single-unit is mainly accounted for by the fact that almost all of the labor of these single-units is administrative or key permanent personnel. As contrasted with this in the multiple-unit organization extra labor, whose cost is variable, is hired for harvest periods. In addition much of the labor which is used for the handling of sidelines, which are relatively larger in volume in the multiple than in the single-unit organizations, is classed as half fixed and half variable. All of this contributes to the relatively lower share of fixed expenses in the multiple-unit organization than in the single-unit organization.

There is little difference in the shares of expenses which are fixed for facility and inventory expense and for the interest. However, in the case of operational expenses the share which is fixed for the single-unit is again higher than for the multiple-unit.

The picture differs some when actual fixed and variable expenses per dollar of total sales are compared for the single and multiple-unit organizations. Fixed expenses per unit of sales in the single-

unit were less than in the multiple-unit organization—2.59 cents per dollar of total sales as compared with 2.69 cents (Tables 15, 16, and 17). Consequently even though the percentage of total expenditures which is fixed is less for the multiple than for the single-unit organization the actual total amount which is fixed is greater for the multiple than for the single. Although the expenses for salaries and wages were primarily responsible for the lower share of fixed expenses for the multiple as compared with the single, the actual size of the salaries and wage expense item which is fixed was greater for the multiple than for the single-unit—.85 cents as compared with .75 cents per dollar of total sales.

Case II: Multiple Stations Without Sidelines

This model multiple-unit elevator is similar to that in Case I with the exception that the stations outside of the headquarters point do not do any sideline business. The organization at the headquarters point carries on sideline operations and like all of the other stations of the multiple-unit is open on a year-around basis for the merchandising and storage of grain. In this case the new multiple-unit model is compared with the same single-unit model discussed in Case I.

TOTAL COSTS

The total expenses of this model cooperative elevator unit were almost six times as great as those of the model single—\$149,699.35 as compared with \$25,469.75 (Tables 8 and 18). The ration of the multiple-unit expenses to the single-unit expenses dropped in all four of the expense groupings as compared with Case I (Tables 13 and 19).

The decline in the size of the expenses of salaries and wages is a result of doing away with labor required for handling the sidelines at local stations outside

**Table 18.—Case II: Costs of Model Multiple Organization by Expense Items.
(Dollars)**

Expense item	Total expense	Wheat expense	Sideline expense	Fixed expense	Variable expense
Salaries and wages	57,900.00	25,300.00	32,600.00	34,350.00	23,550.00
Depreciation	18,695.00	13,070.00	5,625.00	18,695.00	-----
Insurance and bonds	6,813.85	4,907.50	1,906.35	5,110.39	1,703.46
Taxes	12,455.50	8,314.00	4,141.50	11,413.30	1,042.20
Interest	34,430.00	26,356.75	8,073.25	30,050.00	4,380.00
Utilities	3,750.00	2,437.50	1,312.50	-----	3,750.00
Telephone and telegraph	1,500.00	750.00	750.00	375.00	1,125.00
Repairs and supplies	6,125.00	3,900.00	2,225.00	1,684.37	4,440.63
Advertising	1,000.00	250.00	750.00	500.00	500.00
Truck expense	2,000.00	-----	2,000.00	500.00	1,500.00
Administrative and selling expense	5,000.00	2,750.00	2,250.00	4,000.00	1,000.00
Total expense	149,669.35	88,035.75	61,633.60	106,678.06	42,991.29

the central station. The elimination of sidelines and sideline facilities at the stations outside the headquarters point permitted a cut in expenses for facilities and inventory from \$47,823.00 to \$37,964.35. Interest was cut as a result of the elimination of sideline facilities and inventory. Operational expenses declined because of the elimination of the farm delivery of petroleum products from the outside stations and a decrease in supplies used.

Total unit costs of sales for the multiple organization became less than for the single-unit organization (4 percent less). Total expenses per dollar of sales for the multiple-unit were 3.28 cents as compared with 3.42 cents for the single-unit (Tables 11 and 20). Salaries and wages were the only group of expenses of the multiple which continued to be higher than a similar single-unit expense. Even here they were 18 percent higher. For both facility and inventory expense and for interest the multiple-unit had expenses 12 percent less than the single-unit in terms of cents per dollar of total sales. Even greater was the advantage which the multiple-unit had on operational expenses (23 percent less).

DEPARTMENTAL COSTS

Expenses of marketing wheat are the same under Case II as under Case I inasmuch as the only change in the structure was the elimination of sideline sales at stations outside the headquarters point. As shown in the analysis of Case I wheat expenses per bushel handled were approximately the same for the single and the multiple-unit—2 percent higher for the multiple than for the single-unit.

The cost of handling sidelines changed considerably in Case II as compared with Case I, as a result of handling sidelines at the headquarters point only and not at the outside stations (Tables 12 and

20). It is assumed in Case II that as a result of eliminating sideline sales at the outside stations the total sideline sales would be cut a little, but not appreciably, inasmuch as the headquarters station would ordinarily not be far distant from individual members usually marketing wheat through the outside stations. Consequently the volume of sideline sales under Case II was assumed to be \$858,315 as compared with \$950,000 for Case I. Under Case I the expenses of handling sidelines were 9.33 cents per dollar of sideline sales. As a result of consolidating sidelines at the central station, however, this cost was reduced to 7.18 cents or by 23 percent. This cut in expenses was the result of relatively lower costs of handling sidelines on a relatively larger volume basis through the central station as compared with the higher cost of handling them on a small volume basis at outside stations.

Although sideline sales expenses under Case I were 14 percent less for the multiple-unit than for the single-unit, under Case II they were 34 percent less—7.18 cents as compared with 10.90 cents per dollar of sideline sales. Each of the four expense groups showed sharp decreases in Case II as compared with Case I for the multiple-unit.

This decrease of each of the group expenses reduces the ratios of multiple sideline expense to single sideline expense to considerably less than unity for each of the four groups (Table 19). It averaged .66 for all expenses as a whole, but ranged from .47 for interest to .87 for salaries and wages.

FIXED AND VARIABLE COSTS

There is no appreciable change in the division of expenses between fixed and variable in Case II as compared with Case I. The multiple-unit under Case II had 71.3 percent of its expenses fixed as compared with 70.9 for Case

Table 19.—Case II: Ratio of Multiple to Single Per Unit Expenses by Expense Groups.

Expense group	Total sales	Wheat		Sideline sales
		Bushels handled	sales	
Salaries and wages	1.18	1.15	1.15	.87
Facility and inventory	.88	1.03	1.03	.51
Interest	.88	1.04	1.04	.47
Operational	.77	.76	.76	.58
Total	.96	1.02	1.02	.66

Table 20.—Case II: Expenses Per Unit for Model Multiple Organization by Expense Groups.

Expense group	Total	Wheat		Sidelines
	(cents per dollar of total sales)	(cents per bushel handled)	(cents per dollar of wheat sales)	(cents per dollar of sideline sales)
Salaries and wages	1.27	1.27	.69	3.80
Facility and inventory	.83	1.31	.71	1.36
Interest	.76	1.32	.71	.94
Operational	.42	.50	.27	1.08
Total	3.28	4.40	2.38	7.18

Table 21.—Case II: Fixed and Variable Expenses Per Dollar of Total Sales for Model Multiple Organization by Expense Groups.

Expense group	Total	Fixed		Variable	
	(cents)	(cents)	(percent)	(cents)	(percent)
Salaries and wages	1.27	.75	59.3	.52	40.7
Facility and inventory	.83	.77	92.8	.06	7.2
Interest	.75	.66	87.3	.09	12.7
Operational	.43	.16	36.4	.27	63.6
Total	3.28	2.34	71.3	.94	28.7

Table 22.—Case II: Ratio of Multiple to Single Fixed and Variable Per Unit Expenses by Expense Groups.

Expense group	Total	Fixed	Variable
Salaries and wages	1.19	.88	1.63
Facility and Inventory	.88	.88	1.00
Interest	.88	.89	.82
Operational	.77	.73	.82
Total	.96	.90	1.15

I. (Table 14). These compare with 76.0 percent for the single-unit. The slight increase in fixed expenses found in Case II is a result of the fact that such expenses as labor required for handling sidelines (which was classified as 50 percent variable) was cut relatively more than the more fixed expenditures necessary for facilities, inventory, and interest. (Tables 16, 21, and 22).

Contrasted with Case I, however, the total fixed expenses per unit of sale were less for the multiple-unit than for the single-unit—2.34 cents per dollar of sales as compared with 2.59 cents per dollar of sales for the single-unit. (Tables 15 and 21). The fixed expenditure for salaries and wages was the same for both the single-unit and the multiple-unit, but for the other three expense categories the multiple fixed expenses were actually less. (Table 22).

Case III: Multiple Stations Seasonally Operated

In Case III the multiple-unit model is the same as for Case II with the exception that the stations outside the central point were open for the handling of wheat for three months during the harvest season only—June, July, and August. Again the stations outside the central point did not handle sidelines. Total sales were calculated at \$4,327,065 of which sideline sales were the same as in Case II, \$858,315. Wheat sales, however, as a result of seasonal operations only at the outside stations were cut from \$3,700,000 to \$3,468,750. This resulted from a drop in number of bushels handled from 2,000,000 bushels to 1,875,000 bushels.

TOTAL COSTS

Total costs of operation of the multiple-unit were 5 ½ times as great as for the single-unit—\$139,341.85 as compared with \$25,469.75. (Tables 8 and

23). Again the ratio of salaries and wages for the multiple-unit to salaries and wages for the single-unit was higher than the ratios for the other cost groups, namely 6.1. (Table 10). The multiple-unit had an apparent advantage in operational expenses for in that case the ratio was 4.6.

The multiple-unit shows an advantage in expenses when compared with the single on the basis of total expenses per dollar of sales. Multiple expenses were approximately 6 percent less than those for the single-unit, for its total expenses per dollar of sales were 3.22 cents as compared with 3.42 cents for the single-unit. (Tables 11 and 24). Salaries and wages were just slightly higher for the multiple than for the single-unit—1.13 cents per dollar of sales as compared with 1.07 cents. The other expenses for the multiple-unit were less—ranging from 7 to 21 percent below the expenses per dollar of sales for the single-unit (Table 25).

DEPARTMENTAL COSTS

Expenses under Case III differed from those of Case II in the handling of wheat only since sidelines operations were not changed from those under Case II. The local stations were open just three months of the year—June, July, and August. During other months of the year wheat was kept in storage, turned by employees from the central office and moved out by these employees.

Inasmuch as expenses for facilities themselves remained unchanged as compared with Case II the changes in expenses which occurred were principally in salaries and wages and secondarily in operational expenses such as utilities, and repairs and supplies.

The total expenses per bushel of wheat handled in Case III were 4.14 cents per bushel as contrasted with 4.40 for the

Table 23.—Case III: Costs of Model Multiple Organization by Expense Items.
(Dollars)

Expense item	Total expense	Wheat expense	Sideline expense	Fixed expense	Variable expense
Salaries and wages	48,900.00	16,300.00	32,600.00	29,850.00	19,050.00
Depreciation	18,695.00	13,070.00	5,625.00	18,695.00	-----
Insurance and bonds	6,516.85	4,610.50	1,906.35	4,887.64	1,629.21
Taxes	12,050.00	7,908.50	4,141.50	11,170.00	880.00
Interest	34,430.00	26,356.75	8,073.25	30,050.00	4,380.00
Utilities	3,250.00	1,937.50	1,312.50	-----	3,250.00
Telephone and telegraph	1,500.00	750.00	750.00	375.00	1,125.00
Repairs and supplies	6,000.00	3,775.00	2,225.00	1,650.00	4,350.00
Advertising	1,000.00	250.00	750.00	500.00	500.00
Truck expense	2,000.00	-----	2,000.00	500.00	1,500.00
Administrative and selling expense	5,000.00	2,750.00	2,250.00	4,000.00	1,000.00
Total expense	139,341.85	77,708.25	61,633.60	101,677.64	37,664.21

Table 24.—Case III: Expenses Per Unit for Model Multiple Organization by Expense Groups.

Expense group	Total	Wheat		Sidelines
	(cents per dollar of total sales)	(cents per bushel handled)	(cents per dollar of wheat sales)	(cents per dollar of sideline sales)
Salaries and wages	1.13	.87	.47	3.80
Facility and inventory	.86	1.36	.74	1.36
Interest	.80	1.41	.76	.94
Operational	.43	.50	.27	1.08
Total	3.22	4.14	2.24	7.18

Table 25.—Case III: Ratio of Multiple to Single Per Unit Expenses by Expense Groups.

Expense group	Total sales	Wheat		Sideline sales
		Bushels handled	Sales	
Salaries and wages	1.05	.79	.79	.87
Facility and inventory	.91	1.06	1.07	.51
Interest	.93	1.10	1.11	.47
Operational	.79	.76	.76	.58
Total	.94	.96	.96	.66

Table 26.—Case III: Fixed and Variable Expenses Per Dollar of Total Sales for Model Multiple Organization by Expense Groups.

Expense group	Total	Fixed		Variable	
	(cents)	(cents)	(percent)	(cents)	(percent)
Salaries and wages	1.13	.69	61.0	.44	39.0
Facility and inventory	.86	.80	93.3	.06	6.7
Interest	.80	.70	87.3	.10	12.7
Operational	.43	.16	37.5	.27	62.5
Total	3.22	2.35	73.0	.87	27.0

Table 27.—Case III: Ratio of Multiple to Single Fixed and Variable Per Unit Expenses by Expense Groups.

Expense group	Total	Fixed	Variable
Salaries and wages	1.05	.92	1.38
Facility and inventory	.91	.91	1.00
Interest	.93	.95	.91
Operational	.79	.73	.82
Total	.94	.91	1.06

multiple-units in Cases I and II (Tables 12, 20, and 24). For the first time however, this cost per bushel handled was less than for the single-unit which was 4.32 cents per bushel handled. Similar relationships exist when expressed in terms of cents per dollar of sales.

Cost characteristics of the four expense groups changed as a result of a slightly smaller total volume of wheat handled through facilities of the same size. Expenses for facilities and inventory and for interest increased over what they were in Case II while labor expenses per bushel handled decreased sharply and operational expenses remained the same. Expenses for facilities and inventory increased from 1.31 cents in Case II for the handling of wheat to 1.36 cents per bushel in Case III while the interest expense increased from 1.32 cents to 1.41 cents per bushel of wheat handled. (Tables 20 and 24). Expenses for salaries and wages for example declined from 1.27 cents to .87 cents. Operational expenses were unchanged at .50 cents per bushel of wheat handled.

Multiple-unit expenses per bushel of handling wheat under Case III were 4 percent less than single-unit expense—4.14 cents as compared with 4.32 cents (Tables 11 and 24). The expense for salaries and wages was just 79 percent of that for the single unit as compared with 115 percent for the conditions existing under Cases I and II (Tables 13, 19, and 25). The expenses for facilities and inventory and for interest

were higher in the multiple-unit than in the single-unit by 6 percent and 10 percent respectively. Operational expenses remained at 76 percent of those for the single-unit.

FIXED AND VARIABLE COSTS

A major effect of having wheat facilities open just seasonally was to increase the relative share of the fixed cost of the multiple-unit relative to the shares under the previous two cases. This resulted from the fact that much of the labor used in wheat operations during the other months of the year was variable while cost of facilities and interest remained approximately the same. Consequently the share of the total expenses which was fixed increased to 73 percent for the multiple-unit under Case III as compared with 71.3 percent with Case II and 70.9 percent with Case I (Tables 16, 21, and 26). Even yet, however, the share was less than for the single-unit, namely 76.0 percent (Table 15).

While this increase in the relative expenditures for physical facilities had the effect of increasing the fixed cost per dollar of sales, expenses for all of the four expense groups were less per dollar of sales under Case III than for the single-unit. The fixed costs of the multiple-unit by expense groups were less than for the single-unit by percentage amounts ranging from 5 to 27 percent and averaged 9 percent less for all of the fixed cost (Table 27). Variable costs on the other hand were 6 percent more for the multiple-unit than for the single-unit.

Appendix A

PROCEDURE FOR THE ALLOCATION OF EXPENSES BETWEEN WHEAT AND SIDELINES

The operating expenses for the cooperatives included in the study were given in the audits as the amount for the association as a unit. In order to analyze the costs of operating the two major departments, it was necessary to allocate the expenses to the respective departments. In all cases where it could be accurately determined, the allocation was made on the basis of benefit received; that is the department which benefited from the expenditure received the burden of the outlay. When the benefit could not be accurately determined, the expense was allocated on an ability to pay basis. This method was used for some of the minor expense items which were joint costs in nature.

The expense items were standardized into eleven groups for convenience of analysis. The major expenses were the same for all of the association, however some variation existed in the listing of minor expenses. These were grouped together under administrative and selling expense.

In making the actual allocation of expenses, an effort was made to obtain estimates from managers or bookkeepers of the associations. These estimates served as the basis with certain adjustments and refinements for the final allocation between the wheat and sideline departments.

The primary basis used for allocating the individual expense groups were as follows:

Expense item	Basis of Allocation
Salaries and Wages	Permanent employees—allocation of time between wheat and sideline operations. Temporary employees—harvest labor primarily, <i>wheat</i> ; extra sideline labor in multiples, <i>sidelines</i> .
Depreciation	Schedule of permanent assets and depreciation from annual audits of the association.
Insurance	Schedule of unexpired insurance from annual audits of the associations and estimates of managers.
Taxes	Tax records of the associations and estimates of managers.

Interest	Division of total assets into facility, operating, and commodity capital by departments and application of the existing rates of the Wichita Bank for Cooperatives for each type of capital.
Utilities, Telephone and Telegraph Repairs and Supplies Advertising	Estimates of benefit received by each department with aid of manager or bookkeeper.
Truck Expense	Investigation of primary use of truck and estimate of time used if used by each department.
Adm. and Sell. Expense	Some of the many items composing this expense were accountable to a specific department. Other items were joint costs and were allocated on an ability to pay basis and on the basis of estimates of managers or bookkeepers.

Appendix B

THE PROCEDURE FOR THE CALCULATION OF FIXED AND VARIABLE COSTS

In order to calculate the fixed and variable costs of the associations included in this study, it was necessary to clearly define the meaning of the terms, fixed costs and variable costs. Fixed costs were considered as those costs which are stationary for a particular production period of time, while the variable costs vary for the same period. Fixed costs are independent of output within this production period while variable costs are a function of output although not necessarily proportional to it.

The production period used in this study was one year in length. An estimate was made of each expense item as to whether it was entirely fixed, entirely variable, or a portion fixed and the remainder variable. These estimates were based on the production period used and the relationship of output to the expense item. These estimates were used as a standard for calculating the fixed and variable costs for all of the associations included in the study.

The standard estimates used for the calculation of these costs were as follows:

Expense Items:	Percentage of Cost Fixed	Percentage of Cost Variable
Salaries and Wages		
Manager's Salary	100	0
Other Salaries and Wages	50	50

Depreciation	100	0
Insurance and Bonds	75	25
Interest		
Facility	100	0
Operating	50	50
Commodity	0	100
Taxes		
Payroll Taxes	60	40
Advalorem Tax	100	0
Corporation License	100	0
Use Tax	0	100
Sales Tax	0	100
Truck Tax	100	0
Excise Tax	0	100
Utilities	0	100
Telephone and Telegraph	25	75
Repairs	30	70
Supplies	25	75
Advertising	50	50
Truck Expense	25	75
Adm. and Selling Expense		
Director's Fees	100	0
Audit Expense	100	0
Donations	50	50
Dues and Subscriptions	100	0
Lease and Rentals	100	0
Annual Meeting and Travel	50	50
Scale Inspection	100	0
General Expense	25	75