# Cost of processing and distributing grade A milk in Mississippi 

Verner G. Hurt

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## COST OF PROCESSING AND DISTRIBUTING GRADE "A" MILK

 IN MISSISSIPPIby<br>Verner G. Hurt



MISSISSIPPI STATE UNIVERSITY
MISSISSIPPI AGRICULTURAL EXPERIMENT STATION HENRY H. LEVECK, Director

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Analysis of costs and returns of 26 Mississippi fluid milk plants showed an average net return of less than one and a half cents per dollar of sales in 1965, Figure l. Eight of the 26 plants had a net loss on their operation. By plants, the net ranged from a loss of almost 10 cents per dollar of sales to a gain of almost 7 cents. Return on investment averaged 4.4 percent for the 25 plants from which investment data was obtained. Cost of raw milk and other products used, such as sugars and flavors, averaged almost 55 cents per dollar of sales. About 95 percent of this cost was for the raw milk purchased for use in the fluid milk products.

Fifteen cents of the sales dollar, on the average, was accounted for by the cost of processing (cooling, pasteurizing, homogenizing and packaging) the product. On a cents-per-quart basis, these costs tended to decline from an average of about 5 cents in small plants to less than $3 \frac{1}{2}$ cents in plants that processed more than 25 million pounds of milk annually.

Selling and delivery costs were the second largest component of the sales dollar. These costs averaged 24 cents per dollar of sales for the plants in the study. The plants with volumes less than 5 million pounds annually had the lowest selling and delivery costs per unit on the average while the plants with volumes greater than 25 million pounds had the highest.

Administrative costs and plant losses accounted for almost $4 \frac{1}{2}$ cents per sales dollar. Slightly more than 3 cents of this amount was administrative cost.


## $0 \%$ <br> Product Cost

## A Administrative Cost

$\square$ Cost of Plant Losses

## Processing Cost

Selling and Delivering Cost
Net Revenue

Figure 1. Distribution of the sales dollar, 26 handlers, Mississippi, 1965

# COST OF PROCESSING AND DISTRIBUTING GRADE "A" MILK IN MISSISSIPPI 

by

Verner G. Hurt

Prices Mississippi processors, grocers, and consumers pay for milk are regulated by the Mississippi Milk Commission. One of the duties given to the Commission by the Legislature in 1960 is the responsibility for investigating
". . . the costs and charges for producing, hauling,
bottling,. packaging, distributing, processing, and
marketing of milk and other services performed in
relation to milk and . . ." determining ". . . rea-
sonable charges and cost therefor, . . .11 (Senate
Bili No. 1757, Section l5(b), May ll, 1960).
In 1965, the Commission, in its efforts to obtain equitable guides for its regulatory activities, requested that the Department of Agricultural Economics, Mississippi State University, conduct a study of the average cost of processing and distributing milk in the State. This publication reports the findings of that study.

## Procedure

Data pertaining to costs associated with processing and distributing fluid milk were obtained from 26 handlers located in Mississippi. These data were collected in 1966 by auditors enployed by the Commission and were based upon the accounting records maintained by the handlers. The period covered by the cost data was January 1 - December 31, 1965 or the most recent fiscal year (covering a part of that period and subsequent months) for which data were available.

The Department of Agricultural Economics had the responsibility for analyzing the data and preparing the report. For purposes of analysis, handlers were grouped according to volume of milk processed. The number of handlers in each of the four groups delineated and the volume classes are shown in Table 1.

Table l. Number of handlers by volume processed per year, Mississippi, 1965.

| Group | $\vdots$ | Number of Handlers |
| :---: | :---: | :---: |
|  |  | $\vdots$ |
| II | 7 | Villion pounds |
| II | 7 | less than 5 |
| III | 5 | 5 to 10 |
| IV | 7 | lo to 25 |
| more than 25 |  |  |

Not only were many different products (e.g., homogenized, skim, cream, chocolate, and buttermilk) processed by the plants in this study, but also these products were packaged in containers of different sizes (half-gallons, quarts, pints, thirdquarts, half-pints). The cost data obtajned could not be allocated to each specific product in each of the different container sizes. Consequently, a common unit of measure equivalent to a quart of fluid milk product was used in calculating the weighted average costs.

Throughout this report the term "quart equivalent" or "quart" refers to a volume of fluid milk processed rather than to a specific product in a particular container size. For example, either a quart of homogenized milk or four half-pints of chocolate are one quart equivalent of fluid milk product. Hence, the costs reported herein are averages over all products and all container sizes processed in the plants in the study. These costs thus cannot be interpreted as the costs per quart of any specific product in any particular container size.

In addition to cost data, information pertaining to the gross value of sales of fluid milk products and the investment of handlers was obtained for this study. Averages of these two items per quart equivalent have been calculated also.

## Cost of Processing and Distributing

Fluid Milk

Four major cost centers were defined for this study:
product cost, (2) processing cost, (3) selling and delivery cost, and (4) administrative cost. Costs were further allocated to certain accounts within each of these cost centers in accordance with the procedure followed by the handlers and/ or standard accounting practices.

Product Cost: "Product costs" includes the cost of the raw milk purchased, the cost of other products such as sugar, flavors, non-fat solids, and charges associated with the procurement of the raw milk supplies. These costs, averaging 13.5 cents per quart in the 26 plants, did not differ appreciably between plants in the different size groups, Figure 2. 1/ Average product cost ranged from 13.2 cents per quart for plants in Group III to 13.9 cents for plants in Group I. The net cost of the raw milk 2/ accounted for about 95 percent of the total product cost regardless of plant size.

Processing Cost: In general, the cost of processing per quart of fluid milk equivalent would be expected to decrease as the volume processed increased.

[^0]of $\frac{2 /}{1 k}$ The net cost of the raw milk was defined as the cost of milk purchases less milk and cream sales and hauling income.


Fiģure 2. Product cost per quart, by size of plant, Mississippi, 1965

Such was the case, on the average, for the plants in this study. Weighted average processing costs per quart ranged from 5.2 cents for the small plants to 3.4 cents for the larger plants, Figure 3. For all plants the processing cost per quart equivalent averaged 3.8 cents.


Figure 3. Processing cost per quart, by size of plant, Mississippi, 1965

Containers, at about 43 percent of the total, and labor, at 25 percent, were the two big items of processing costs.

Selling and Delivery Cost: To sell and deliver their products cost the 26 processors in the sample an average of 5.9 cents per quart. While increasing the volume handled might be
expected to lead to economies in these costs, many of the efforts exerted to increase volume can well give rise to a higher unit cost. To increase volume, processors may increase the size of their sales areas, make more home deliveries, or offer their sales personnel more attractive sales incentives-all practices that tend to push selling cost per unit up. The impact of these influences may be the reason that selling and delivery costs were, on the average, highest in the group of plants with the largest volumes. At 6.14 cents per quart, they exceeded by almost a cent and a quarter corresponding costs in plants with the least volumes, Figure 4.

Salaries accounted for about 50 percent of the total. selling and delivery costs for each size group. Next in importance to salaries were those couts associated with the ownership and operation of delivery trucks. Some indication of the increases in costs from increases in the size of the distribu~ tion area are evidenced by the higher cost for gasoline, oil, tires, ect. for the plants in Group IV.

Administrative Costs: For the plants studied, the weighted average administrative cost did not appear to be related to the volume handled. Costs averaged the highest for plants in Group III, 1.1 cents per quart, and the lowest for plants in Group II, 0.7 cents per quart, Figure 5. For all plants studied, the weighted average administrative cost was 0.8 cents per quart equivalent of milk sold.

Total Costs: The average total cost per quart of milk sold tended to decrease as volume increased. Average costs ranged from 25.3 cents per quart for handlers in Group I to 23.9 cents per quart for those in Group III, Figure 6. For all plants, the average was 24.3 cents per quart.

Raw product cost made up more than half of the total cost, ranging from 53 to 57 percent of the total in plants of the various sizes. For the 26 handlers, product cost averaged about 56 percent of the total, Figure 5. The proportion of the total cost associated with processing declined as volume increased while the proportion associated with selling and delivery tended to increase.

## Variability of Costs

Many different factors affect the level of costs within a particular plant and hence contribute to differences between plants in the average costs for the cost categories delineated. Some of the likely causes of cost differences and the extent of these differences by cost categories and by size groups are discussed below.

Product Cost: Differences in the average butterfat content of the final products sold may cause substantial differences in the cost per quart of the raw product between plants.


Figure 4. Selling and delivery cost per quart, by size of plant, Mississippi, 1965

Also, with plants operating under a system of milk marketing orders, loration differentials within a particular order and differenc^s in the level of Class I prices between orders are


Figure 5. Administrative cost per quart, by size of plant, Mississippi, 1965


Figure 6. Total cost per quart, by size of plant, Mississippi, 1965
a source of variability in product cost per quart to the plants. Another source of variability may be plant differences in the proportion of the final product that chocolate and other flavored products constitute. These differences can result in different levels by plants in the cost of chocolate powder, sugar, and other such ingredients.

Table 2. Distribution of plants by average product cost per quart equivalent of fluid milk processed, by size groups, 26 handlers, Mississippi, 1965.


Average cost of the product per quart equivalent of fluid milk processed for the plants in the study ranged from 11.9 to 15.5 cents. Only three of the plants had costs per quart of 12.5 cents or less while costs for four of the plants were 14.6 cents per quart or more, Table 2. Nineteen of the 26 plants had average product costs of from 12.5 to 14.5 cents per quart equivalent.

Table 3. Distribution of plants by average processing cost per quart equivalent of fluid milk processed, by size groups, 26 handlers, Mississippi, 1965.
Average processing cost : I : Size group $\quad$ II $:$ III : IV: AII (cents/quart) - - Number of plants - -

| 3.5 or less | 0 | 0 | 0 | 6 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $3.6-4.0$ | 0 | 3 | 2 | 1 | 6 |
| $4.1-4.5$ | 1 | 1 | 3 | 0 | 5 |
| $4.6-5.0$ | 2 | 1 | 0 | 0 | 3 |
| 5.1 or more | 4 | 2 | 0 | 0 | 6 |

Processing Cost: Cost of processing in individual plants varied from 3.1 to 5.7 cents per quart equivalent. Sources of variability in processing costs are (l) differences in the depreciation schedules followed, (2) differences in the extent to which the available capacity of the fixed assets are utilized, and (3) economies attained from processing larger volumes of product--to mention a few.

Economies associated with larger volume operations appear to have been a major source of variability in costs. For example, in six of the seven plants in Group IV (the group with the highest volume) processing costs per unit were 3.5 cents or less; in no plant with a smaller volume was processing costs that low, Table 3. In each of the 7 plants with volumes of 5
million pounds or less, these costs exceeded 4.0 cents; and in 6 of the 14 plants with volumes of 10 million pounds or less processing costs per quart exceeded 5.0 cents.

Table 4. Distribution of plants by average selling and delivery cost per quart equivalent of fluid milk sold, by size groups, 26 handlers, Mississippi, 1965.

| Average selling \& delivery | Size group |  |  |  | $\begin{gathered} \text { All } \\ \text { plants } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | I | II | III | IV |  |
| (cents/quart) |  | 而 | pl | - |  |
| 5.0 or less | 5 | 1 | 2 | 2 | 10 |
| 5.1-6.0 | 1 | 4 | 2 | 1 | 8 |
| 6.1-7.0 | 1 | 1 | 1 | 2 | 5 |
| 7.1 or more | 0 | 1 | 0 | 2 | 3 |

Selling and Delivery Costs: The size of the sales area, the concentration of sales within an araa, the proportion of total sales at retail, wholesale, and contract, the amount of advertising, and the depreciation schedules followed for delivery equipment are factors giving rise to variability between plants in per unit costs of selling and delivering fluid milk. Ten of the plents studied had selling and delivery expenses per quart of 5.0 cents or less, Table 4 . That the size of the sales area was an important consideration is indicated by the fact that in five of the seven plants in the smallest group costs per quart were 5.0 cents or less, while in four of the seven largest plants these costs were more than 6.0 cents. For three of the plants selling and delivery costs per quart exceeded 7.0 cents. For all plants studied, selling and delivery costs ranged rom 4.0 to 8.6 cents per quart.

Table 5. Distribution of plants by average administrative cost per quart equivalent of fluid milk sold, by size groups, 26 handlers, Mississippi, 1965.


Administrative Costs: For the plants studied, administrative costs per quart sold varied from 0.4 to 1.7 cents per quart. This cost was 1.0 cents per quart or less for about two-thirds of the plants (19 of 26), Table 5. Some factors contributing to the variability observed may have been (1) differences in salary levels or management, (2) differences in accounting procedures among plants, and (3) for those plants where ownership and management were the same, returns to ownership may have been taken as salaries rather than as profits to the business.

Total Costs: All the facぁors that contribute to variations in the costs per unit by categories also affect total costs. For the plants in the study, total costs per quart ranged from 20.7 to 27.8 cents. That volume handled was an important source of variability in unit costs between plants is indicated by five of the seven largest plants, but only one of the seven smallest plants with costs less than or equal to 24.5 cents per quart sold, Table 6. Costs exceeded 25.5 cents per quart sold in seven of the twenty-seven plants.

Table 6. Distribution of plants by average total cost per quart equivalent fluid milk sold, by size groups, 26 handlers, Mississippi, 1965.


Sales, Investment and Net Returns
Sales: Handlers in the study averaged receiving 24.6 cents per quart equivalent for the fluid milk they sold, Figure 7.


Figure 7. Value of sales per quart, by size of plant, Mississippi, 1965

By size groups, the average value of sales per quart ranged from 24.4 cents for handlers in Group III to 25.5 cents for handlers in Group I. For all plants in the study, the value of sales per quart equivalent ranged from 21.3 cents to 27.1 cents. Four of the plants received 24 cents or less and four 26 cents or more per quart equivalent of milk sold, Table 7.

Investment: The 25 handlers from which investment information was obtained had an average of 8.2 cents invested in facilities and equipment per quart equivalent of fluid milk sold, Figure 8. By size groups, the average investment per quart ranged from 7.7 to 8.3 cents, with the plants in Group I having the lowest average investment. Ten of the 25 handlers had more than 9 cents per quart invested while 8 had 7 cents or less invested per quart, Table 8.


Figure 8. Investment per quart, by size of plant, Mississippi, 1965

Table 7. Distribution of plants by average value of sales per quart equivalent of fluid milk sold, by size groups, 26 handlers, Mississippi, 1965.

| Average valued sales | Size group |  |  |  | $\begin{aligned} & \text { All } \\ & \text { plants } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | I | I | II | IV |  |
| (cents/quart) | - - Number of plants - - - |  |  |  |  |
| 24.0 or less | 0 | 1 | 2 | 1 | 4 |
| 24.1-25.0 | 1 | 3 | 2 | 3 | 9 |
| 25.1-26.0 | 4 | 2 | 1 | 2 | 9 |
| 26.0 or more | 2 | 1 | 0 | 1 | 4 |

Table 8. Distribution of plants by average investment per quart equivalent of fluid milk sold, by size groups, 25 handlers, Mississippi, 1965.

| Average investment | Size group |  |  |  | $\begin{aligned} & \text { All } \\ & \text { plants. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | I |  | V |  |
| (cents/quart) |  |  | an |  |  |
| 7.0 or less | 2 | 1 |  | 3 | 8 |
| 7.1-8.0 | 1 | 3 | 0 | 1 | 5 |
| 8.1-9.0 | 1 | 0 | 1 | 0 | 5 |
| 9.1 or more | 3 | 2 | 2 | 3 | 10 |

Net Returns: $1 /$ For all of the plants in the study, the average net return was 0.4 cents per quart of fluid milk equivalent sold, Figure 9.


Figure 9. Net returns per quart, by size of plant, Mississippi, 1965

Prants in Group II had an average loss of about 0.1 cent per quart. Plants in the other three groups, on the average, had net gain ranging from 0.2 cent per quart for those in Group I to almost 0.5 cent per quart for those in Group III. Eight of the 26 plants studied had a net loss on the milk sold, while three had a net gain of more than one cent per quart, Table 9. actually, variations in net revenues were less than one could have been led to expect from the variability of total cost and value of sales. Generally, those plants with low costs also hat a low value of sales per unit and vice versa.

Table 9. Distribution of plants by net returns per quart equivalent of fluid milk processed, by size groups, 26 handlers, Mississippi, 1965.

| Average net returns | Size group |  |  |  | $\begin{gathered} \text { All } \\ \text { plants } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | I | II | II | IV |  |
| (cents/quart) | - | be | pla | - |  |
| Net loss | 1 | 4 | 2 | 1 | 8 |
| 0.1-0.5 | 4 | 1 | 1 | 3 | 9 |
| 0.6-1.0 | 2 | 1 | 1 | 2 | 6 |
| 1.L or more | 0 | 1 | 1 | 1 | 3 |

Net Return on Sales and Investment: Average net returns per dollar of sales by size groups ranged from a loss of 0.4 percent for plants in Group II to a gain of 2.0 percent for plants in Group III, Table 10. The average for all plants was 1.5 percent. Net return per dollar invested averaged 4.4 percent for all plants, Table l0. Plants in Group II had a loss of l.l percent, on the average, while those in Group III had a net return of 6.2 percent on investment.

I/ For this study, net returns are defined as the difference between the value of sales and total cost per quart equivalent of fluid milk sold. Individual and corporate income taxes are not included in the total costs.

Table 10. Net returns per dollar of sales and per dollar invested, by size groups, 26 handlers, Mississippi, 1965.

|  | Size group |  |  |  |  |  |  | AII plants |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item | I | : | II | , | III | : | IV |  |

Net return per

| dollar of sales | 0.87 | -0.35 | 1.98 | 1.87 | 1.46 |
| :--- | :--- | :--- | :--- | :--- | :--- |

Net return per
$\begin{array}{llllll}\text { dollar invested 1/ } & 2.92 & -1.09 & 6.15 & 5.57 & 4.43\end{array}$

1/ Based on six plants in Group II and 25 plants total. Investment data was not obtained from one plant.

Appendix Table 1. PRODUCT COSTS: Weighted average per quart equivalent of fluid milk processed, by size groups, 26 handlers, Mississippi, 1965.

| Description | $: \quad$ Size group | AIL |
| :--- | :---: | :---: | :---: | :---: |


| Raw milk costs |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Milk purchases | 14.14 | 13.84 | 13.14 | 13.48 | 13.52 |
| Less milk and cream sales | 0.75 | 0.98 | 0.47 | 0.27 | 0.45 |
| Less hauling income | 0.13 | 0.20 | 0.11 | 0.17 | 0.17 |
| SUB-TOTAL | 13.26 | 12.66 | 12.56 | 13.04 | 12.90 |
| Other products and procurement costs |  |  |  |  |  |
| Chocolate powder | 0.13 | 0.12 | 0.13 | 0.08 | 0.10 |
| Sugar | 0.24 | 0.16 | 0.10 | 0.20 | 0.18 |
| Milk powder | 0.04 | 0.08 | 0.18 | 0.08 | 0.09 |
| Sour cream | 0.00 | 0.05 | 0.08 | 0.11 | 0.09 |
| Milk audit account | 0.18 | 0.04 | 0.00 | 0.02 | 0.03 |
| Procurement salaries | 0.04 | 0.10 | 0.12 | 0.16 | 0.14 |
| Payroll taxes | $\underline{0.00}$ | 0.01 | 0.00 | 0.01 | 0.01 |
| SUB-TOTAL | 0.63 | 0.56 | 0.61 | 0.66 | 0.64 |
| TOTAL | 13.89 | 13.22 | 13.17 | 13.70 | 13.54 |

Appendix Table 2. PROCESSING COSTS: Weighted average per quart equivalent of fluid milk processed, by size groups, 26 handlers, Mississippi, 1965 .


Containers and cases
Containers
Cases
SUB-TOTAL
Labor
Salaries
Payroll taxes
SUB-TOTAL
Equipment
Repairs and maintenance
Rental or lease
Depreciation
SUB-TOTAL
Buildings, property taxes and insurance
Repairs and maintenance
Rental or lease
Depreciation
Property taxes
Insurance SUB-TOTAL
Other processing costs
Utilities
Freight-in
Plant Supplies
Milk analysis
Laundry and uniforms SUB-TOTAL
TOTAL

| 1.91 | 1.92 | 1.60 | 1.54 | 1.63 |
| :--- | :--- | :--- | :--- | :--- |
| 0.03 | 0.01 | 0.01 | 0.08 | 0.05 |
| 1.94 | 1.93 | 1.61 | 1.62 | 1.68 |
| 1.35 | 1.04 | 1.09 | 0.78 | 0.91 |
| 0.06 | 0.05 | 0.07 | 0.04 | 0.05 |
| 1.41 | 1.09 | 1.16 | 0.82 | 0.96 |
| 0.24 | 0.16 | 0.12 | 0.15 | 0.15 |
| 0.45 | 0.36 | 0.30 | 0.15 | 0.23 |
| 0.30 | 0.13 | 0.34 | 0.13 | 0.18 |
| 0.99 | 0.65 | 0.76 | 0.43 | 0.56 |


| 0.02 | 0.11 | 0.04 | 0.01 | 0.03 |
| :--- | :--- | :--- | :--- | :--- |
| 0.04 | 0.03 | 0.01 | 0.03 | 0.03 |
| 0.07 | 0.13 | 0.07 | 0.06 | 0.08 |
| 0.04 | 0.05 | 0.04 | 0.02 | 0.03 |
| 0.03 | 0.04 | 0.04 | 0.03 | 0.03 |
| 0.20 | 0.36 | 0.20 | 0.15 | 0.20 |


| 0.39 | 0.22 | 0.17 | 0.16 | 0.18 |
| :--- | :--- | :--- | :--- | :--- |
| 0.03 | 0.01 | 0.01 | 0.01 | 0.01 |
| 0.21 | 0.20 | 0.17 | 0.12 | 0.15 |
| 0.01 | 0.02 | 0.02 | 0.03 | 0.03 |
| 0.01 | 0.01 | 0.02 | 0.02 | 0.02 |
| 0.65 | 0.46 | 0.39 | 0.34 | 0.39 |
| 5.19 | 4.49 | 4.12 | 3.36 | 3.79 |

Appendix Table 3. SELLING AND DELIVERY COSTS: Weighted average per quart equivalent of fluid milk sold, by size groups, 26 handlers, Mississippi, 1965.


Labor
Salaries
Payroll taxes SUB-TOTAL
Truck expense
Repairs and maintenance
Gas, oil, tires, eet.
Depreciation
Taxes and licenses SUB-TOTAL
Merchandising expense
Advertising
Royalties

| 2.50 | 2.91 | 2.65 | 2.99 | 2.89 |
| :--- | :--- | :--- | :--- | :--- |
| 0.11 | 0.14 | 0.17 | 0.17 | 0.16 |
| 2.61 | 3.05 | 2.82 | 3.16 | 3.05 |

Bad debts, allowances \& adj.
Customer solicitation
Travel and entertainment
Sales Tax
SUB-TOTAL

| 0.48 | 0.60 | 0.26 | 0.43 | 0.43 |
| :--- | :--- | :--- | :--- | :--- |
| 0.48 | 0.75 | 0.70 | 0.96 | 0.85 |
| 0.35 | 0.36 | 0.43 | 0.36 | 0.37 |
| 0.07 | 0.08 | 0.05 | 0.09 | 0.08 |
| 1.38 | 1.79 | 1.44 | 1.83 | 1.73 |


| 0.26 | 0.35 | 0.37 | 0.39 | 0.37 |
| :--- | :--- | :--- | :--- | :--- |
| 0.00 | 0.00 | 0.01 | 0.03 | 0.02 |
| 0.06 | 0.09 | 0.04 | 0.11 | 0.09 |
| 0.01 | 0.01 | 0.05 | 0.03 | 0.03 |
| 0.02 | 0.04 | 0.01 | 0.05 | 0.04 |
| 0.08 | 0.08 | 0.09 | 0.07 | 0.08 |
| 0.43 | 0.57 | 0.57 | 0.67 | 0.63 |

Buildings, insurance and other
Depreciation, buildings
Depreciation, outside cooler
Depot repairs, tax and renta
Insurance
Utilities
Telephone and telegraph
Laundry and uniforms
Office supplies and postage
Misc. supplies and expense SUB-TOTAL
TOTAL

| 0.02 | 0.02 | 0.00 | 0.01 | 0.01 |
| :--- | :--- | :--- | :--- | :--- |
| 0.01 | 0.00 | 0.00 | 0.01 | 0.01 |
| 0.00 | 0.04 | 0.07 | 0.03 | 0.04 |
| 0.24 | 0.18 | 0.19 | 0.11 | 0.14 |
| 0.03 | 0.03 | 0.02 | 0.06 | 0.04 |
| 0.06 | 0.09 | 0.06 | 0.05 | 0.06 |
| 0.03 | 0.03 | 0.04 | 0.04 | 0.04 |
| 0.06 | 0.05 | 0.05 | 0.07 | 0.06 |
| 0.04 | 0.03 | 0.07 | 0.08 | 0.07 |
| 0.49 | 0.47 | 0.50 | 0.46 | 0.47 |
| 4.91 | 5.88 | 5.33 | 6.14 | 5.88 |

Appendix Table 4. ADMINISTRATIVE COSTS: Weighted average per quart equivalent of fluid milk sold, by size groups, 26 handlers, Mississippi, 1965.

| Description | $:-I \quad$ Size group $\quad$ All |
| :--- | :--- |


| Labor |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Salaries | 0.52 | 0.40 | 0.58 | 0.32 | 0.39 |
| Payroll taxes | 0.02 | 0.02 | 0.04 | 0.01 | 0.02 |
| Employee benefits | $\underline{0.03}$ | 0.04 | 0.04 | 0.14 | 0.10 |
| $\quad$ SUB-TOTAL | 0.57 | 0.46 | 0.66 | 0.47 | 0.51 |
| Interest, legal and assessments |  |  |  |  |  |
| Interest | 0.06 | 0.03 | 0.10 | 0.05 | 0.05 |
| Legal and audit | 0.07 | 0.03 | 0.06 | 0.01 | 0.03 |
| Administrative assessments | $\underline{0.07}$ | 0.04 | 0.07 | 0.05 | 0.06 |
| $\quad$ SUB-TOTAL | 0.20 | 0.10 | 0.24 | 0.11 | 0.14 |
| Other administrative expense |  |  |  |  |  |
| Travel and entertainment | 0.02 | 0.01 | 6.06 | 0.01 | 0.02 |
| Dues and subscriptions | 0.06 | 0.04 | 0.03 | 0.02 | 0.03 |
| Utilities | 0.01 | 0.00 | 0.01 | 0.01 | 0.01 |
| Office equipment, repairs |  |  |  |  |  |
| and rental | 0.01 | 0.01 | 0.02 | 0.03 | 0.02 |
| Office equipment, depreciation | 0.02 | 0.01 | 0.02 | 0.01 | 0.01 |
| Misc. expense and donations | $\underline{0.05}$ | 0.03 | 0.05 | 0.02 | 0.03 |
| SUB-TOTAL | $\underline{0.17}$ | 0.10 | 0.19 | 0.10 | 0.12 |
| TOTAL | 0.94 | 0.66 | 1.09 | 0.68 | 0.77 |

Appendix Table 5. TOTAL COSTS: Weighted average per quart equivalent of fluid milk sold, by size groups 26 handlers, Mississippi, 1965.


Product
Processing
Selling and delivery
Administrative
Plant losses and inventory charge
TOTAL

Product
Processing
Selling and delivery
Administrative
Plant losses and inventory charge
TOTAL

| 13.89 | 13.22 | 13.17 | 13.70 | 13.5 |
| ---: | ---: | ---: | ---: | ---: |
| 5.19 | 4.49 | 4.12 | 3.36 | 3.7 |
| 4.91 | 5.88 | 5.33 | 6.14 | 5.8 |
| 0.94 | 0.66 | 1.09 | 0.68 | 0.7 |
| 0.34 | 0.63 | 0.22 | 0.24 | 0.3 |
| 25.27 | 24.88 | 23.93 | 24.12 | 24.2 | - - - Percentage of total cost - -


| 55.0 | 53.1 | 55.1 | 56.8 | 55.7 |
| ---: | ---: | ---: | ---: | ---: |
| 20.6 | 18.1 | 17.2 | 14.0 | 15.6 |
| 19.4 | 23.7 | 22.2 | 25.4 | 24.2 |
| 3.7 | 2.6 | 4.6 | 2.8 | 3.2 |
|  |  |  |  |  |
| 1.3 | 2.5 | 0.9 | 1.0 | 1.3 |
| 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Appendix Table 6. SALES, JNVESTMENT, AND NET RETURNS: Weighted average per quart equivalent of fluid milk sol by size groups, 26 handlers, Mississippi, 1965

| Description | Size group |  |  |  | All plants |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | : I | II | : III | IV |  |
|  | - - | - Cents | $r$ quart | - - - | - plants |
| Sales | 25.49 | 24.79 | 24.42 | 24.56 | 24.64 |
| Less total cost | 25.27 | 24.88 | 23.93 | 24.12 | 24.28 |
| Net returns | 0.22 | -0.09 | 0.49 | 0.46 | 0.36 |
| Investment1/ | 7.67 | 8.13 | 7.88 | 8.28 | 8.15 |

[^1]
[^0]:    1/ For the details of the information presented in the figures in this and succeeding Sections, the reader is referred to the Appendix.

[^1]:    1/ Based on six plants in Group II and 25 plants total.

