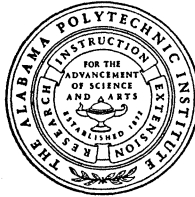


MERCHANDISING DAIRY
PRODUCTS
in Alabama
RETAIL FOOD STORES



AGRICULTURAL EXPERIMENT STATION
of the ALABAMA POLYTECHNIC INSTITUTE

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Auburn, Alabama

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MERCHANDISING DAIRY PRODUCTS

in Alabama

RETAIL FOOD STORES*

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THE 1948 CENSUS of Business reports 13,000 retail food stores in Alabama (2). A high percentage of these stores handle fluid milk products. In addition, there are about 3,000 other stores, such as drug and proprietary stores and filling stations, that handle a limited amount of food products in addition to their regular lines of merchandise. Many of these places of business sell fluid milk products. These 16,000 retail stores are the State's number one outlet for dairy products.

Retail food stores and other stores that handle food products are in a key position to influence both the current and future consumption of dairy products. They now sell an estimated 45 per cent of the fluid milk and most of the other dairy products purchased by Alabama housewives. The present trend indicates that retail stores may handle an even greater proportion of these products in the future.

The people of Alabama now consume fluid milk at only 60 per cent of the national average rate (10). Even the national average rate is below the standard generally recommended for an adequate diet. The retail food store operator has an opportunity to increase store sales of dairy products either by promoting increased per capita consumption of these products, by taking over some of the sales not now made by food stores, or by a combination of these methods.

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** The authors gratefully acknowledge the assistance and cooperation in this study of the 147 food store operators surveyed in four Alabama cities. Acknowledgement is also due members of the SM-10 Technical Committee, members of the Agricultural Economics Department, and personnel of the Extension Service of A.P.I. for their comments and suggestions during the formulation of this report. The authors are also indebted to members of the Alabama Milk Control Board for their cooperation.

In 1953, dairying ranked fourth as an income producer for the Alabama farmer. The quantities of milk sold by Alabama farmers have increased steadily since the mid-1920's. Current sales of dairy products by farmers of the State amount to more than 31 million dollars per year (4).

More efforts to sell milk in Alabama are essential if consumption of these products is to be increased to the national average. The dairy industry, from farmer-producer to retailer, should be seriously concerned with ways and means of increasing sales of milk.

Retail food stores offer the dairy industry a broad and logical field for increased sales as well as for more economical distribution of fluid milk to consumers (9) (11). The retail food store operator's contact with the average food buyer is direct and in most cases daily. Retail store outlets afford a direct and convenient opportunity for expanding sales of dairy products in general and of fluid milk in particular. Therefore, in the search for methods of increasing the quantity of dairy products that reach the consumer, the availability and "know how" of the retail food store operator should not be overlooked.

The primary objective of this study was to determine the relationship of the merchandising of dairy products, with particular emphasis on fluid milk, to the entire business of retail food stores in Alabama.

An effort was made to determine the costs of handling fluid milk and to evaluate some of the factors affecting those costs. The procedure adopted included (a) the determination of methods and practices followed, services performed, volume of dairy products handled per store, and the relationship of dairy product sales to total sales; and (b) the evaluation of these factors in relation to costs and efficiencies of retailing dairy products in conjunction with all other commodities handled by retail food stores.

GENERAL CHARACTERISTICS OF STORES STUDIED

SIZE OF SAMPLE

A total of 147 stores for study were selected at random from a list of all stores handling fluid milk in the cities of Birmingham, Gadsden, Mobile, and Montgomery. This study was concerned chiefly with the typical situation in the average store. National

chain stores comprise less than 3 per cent of all food stores in Alabama and, generally, do a better than average job of merchandising. These stores, therefore, were not included in the study. The sample stores ranged in size from very small to very large and were widely distributed within the environs of each city. Pertinent information was recorded on a prepared schedule during a personal interview with the owner or operator of each store.

RANGE IN TOTAL VOLUME OF BUSINESS

Although chain stores were not included, stores in the study varied greatly in amount of business transacted. The largest store did more than 400 times as much business as the smallest store, Figure 1.

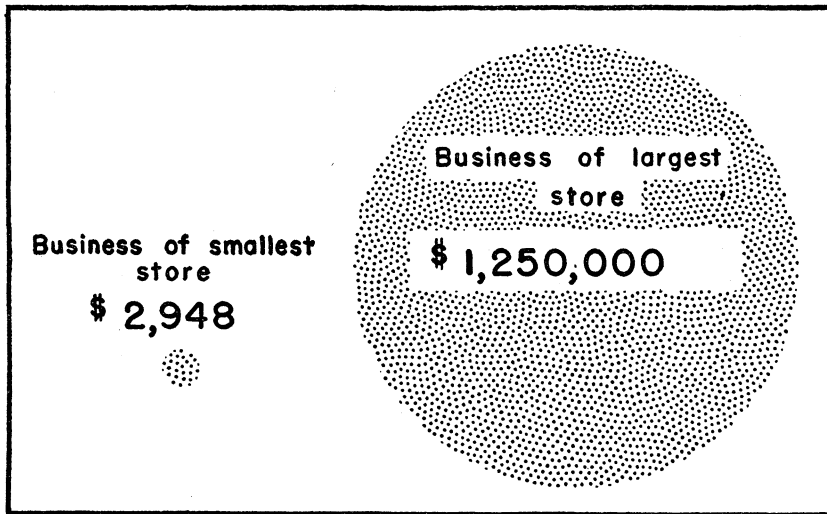


Figure 1. Range in total volume of business, 147 retail food stores, Alabama, 1952.

TABLE 1. RANGE IN VOLUME AND AVERAGE DOLLAR SALES PER STORE BY SIZE GROUP, 147 RETAIL FOOD STORES, ALABAMA, 1952

Store group	Number of stores	Range in volume of sales		
		Low	High	Average
		<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
Small	52	2,948	29,388	18,472
Medium	47	30,213	59,807	46,675
Large	48	60,000	1,250,000	134,452
TOTAL OR AVERAGE	147	-----	-----	65,360

The 147 stores in the sample had total sales amounting to \$9,607,951 during 1952. The volume of annual sales per store ranged from a low of \$2,948 to a high of \$1,250,000, with an average volume of \$65,360, Table 1.

AVERAGE SALES

Stores were divided, according to business volume, into three groups — small, medium, and large, Figure 2. On the average, stores in the small group had 40 per cent as much business as those in the medium and 14 per cent as much as those in the large group.

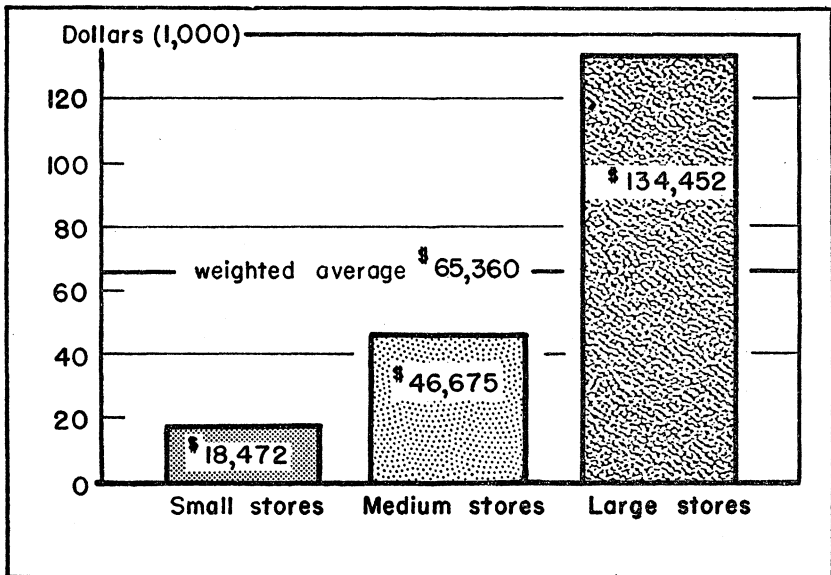


Figure 2. Average volume of business by size group, 147 retail food stores, Alabama, 1952.

The small group included 52 stores with annual sales of less than \$30,000 each; the medium group, 47 stores with annual sales of \$30,000 to \$59,999 each; and the large group, 48 stores with annual sales of \$60,000 or more each, Table 1.

The annual sales average of the sample stores was higher than the estimated U. S. average. This could be attributed to the fact that the sample was drawn from highly urbanized areas, whereas the U. S. average included all areas, urban and other, Appendix Table 1.

OWNERSHIP OF STORES

The 147 stores studied were independently owned. Ninety-three per cent were proprietorships; 7 per cent were partnerships; and less than 1 per cent were incorporated.

FOOD AND STORE SERVICES PROVIDED

Over nine-tenths of the stores handled meats as well as other usual types of food and provided either complete or semi self-service. About three-fourths allowed some purchases on credit and a little over one-third provided delivery service, Figure 3.

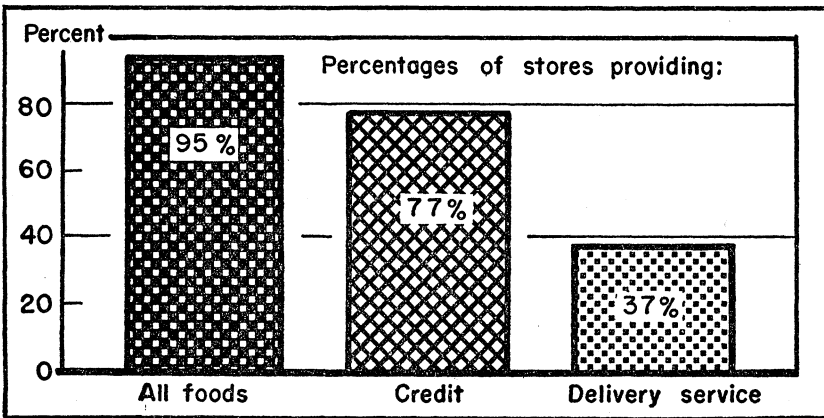


Figure 3. Services provided by stores, 147 retail food stores, Alabama, 1952.

There was a higher percentage of cash-and-carry sales by stores in the small group. Types of services provided varied between and within the groups of stores. The stores with the largest volume of sales provided neither credit nor delivery service to customers. General comparisons were made of the services provided by the three groups of Alabama stores with the average of all U. S. independent food stores, Appendix Table 2.

SIZE OF STORE OPERATIONS

The average number of full-time employees per store ranged from 1.6 in the small group to 4.1 in the large. The average for all stores was 2.6.

Stores in the large group utilized a higher percentage of their floor space for display than did those in either of the other groups. The average number of square feet of floor space per

store ranged from 718 in the small group to 1,795 in the large and was 1,178 for all stores. Display space,¹ the space actually occupied by merchandise, increased as volume of sales increased from 291 square feet per store in the small group to 888 in the large, with an over-all average of 545 square feet per store. The proportionate amount of space devoted to display increased from 41 per cent in the small to 49 per cent in the large group, with an average among all stores of 46 per cent.

The small stores averaged more selling days per year than did stores in the other two groups. This was due to Sunday business activity of many of the small grocers. The small group's average number of selling days per year was 318; the average for all stores was 312. The average store stayed open 12.0 hours per day, 6.1 days per week.

Average number of customers per day, sales per store, average transaction per customer, sales per full-time employee, and annual merchandise turnover varied directly with total sales volume, Appendix Table 3.

NON-FOOD ITEMS HANDLED

Some non-food items were handled in all stores studied. The number and kind varied among the different stores, with the largest stores handling a much wider range of items.

The percentage of stores handling the leading non-food items were as follows:

<i>Item</i>	<i>Percentage of stores handling</i>
Light bulbs	99
Drugs and toiletries	95
Picnic supplies	89
Canning supplies	84
Kitchen hardware	33

Other non-food items, ranging in kind from beer to wearing apparel, drygoods, and hardware, were handled by some stores in all groups.

¹ The selling area in each store was calculated by subtracting aisle space, check-out stand, meat preparation area, washrooms, and other service areas from the total floor space. This left only the space actually occupied by commodities as selling area, referred to in this study as "display space."

COSTS² AND RETURNS

Most of the work in the stores, sometimes all of it except in the large group, was done by the proprietor and members of his family. Much variation was found among the salaries drawn by owners, and the amounts drawn were not closely related to volume of business. Therefore, a scale of allowances for compensation to owners and proprietors was set up to represent what was believed to be a normal relationship between such compensation and volume of sales (9). Allowances computed from this scale were substituted for the salaries that were reported as the value of the proprietor's labor. The computed allowances for operators ranged from 10 per cent of sales in the smallest stores to \$125 a week in the largest stores. In addition to these allowances, storekeepers used some quantities of goods that were not charged on their books. These amounts were determined from records or estimated by grocers, and sales were adjusted to include them.

The compensation to proprietors was a smaller proportion of total operating expenses of stores in the large group than in either of the other groups. "Other operating expenses" included outside hired labor, that is, labor other than that of the proprietor and his family. The smaller stores used practically no outside hired labor. Their fixed overhead costs were at a minimum because of small size and location in low-rent areas. Also, some of the small operators lived on the premises and a portion of the utility expense was chargeable to the domicile. This tended to reduce the "other operating expenses" of the smaller stores.

Stores in the large group, with their much larger volume of sales, apparently were able to utilize their labor more fully and to spread their overhead costs better than could those in the other two groups; therefore, the large stores had more favorable net results.

The net losses shown by the small and medium stores probably meant that the owners received less than the computed wage allowance. However, these negative net results could have been due to the fact that more labor — including proprietor, family, and hired — was used in these stores than their volume of sales warranted, Appendix Table 4.

² When possible, all cost information was obtained from store accounting records. Where formal records of store operation were not available, the information was obtained from such records as tax receipts and receipted invoices. In some cases, 1952 income tax returns were utilized for this purpose.

TABLE 2. AVERAGE SALES VOLUME PER FULL-TIME EMPLOYEE AND PER DOLLAR OF OPERATING EXPENSES BY SIZE GROUP, 147 RETAIL FOOD STORES, ALABAMA, 1952

Store group	Employees per store	Sales		
		Per store	Per employee	Per dollar of expenses
	<i>Number</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
Small	1.6	18,472	11,545	5
Medium	2.2	46,675	21,216	6
Large	4.1	134,452	32,793	7
AVERAGE	2.6	65,360	25,138	7

The sales averages per employee and per dollar of operating expenses for each group of stores varied directly with business volume, Table 2.

The percentage of sales represented by operating expenses ranged from 20.8 in the small group to 13.6 in the large. Gross profit margins were higher in the small and medium groups than in the large group, but were not sufficient to cover the higher costs, including the computed allowance for compensation to owners, Appendix Table 5.

The effect of large-scale operation and large volume of business on efficiency was evident when itemized operating costs for the three groups were compared. Each expense item increased as sales volume increased, but, except for hired labor, all items of expense decreased proportionally as volume of sales increased, Appendix Table 6.

OPERATING COSTS

For all stores, average receipts from sale of goods barely covered the cost of goods and operating expenses³ (including operator's wages and all other costs of operation). However, average receipts in the small and medium stores did not cover these costs, but slightly exceeded them in the large stores, Figure 4.

The average net profit for all 147 stores was \$16. The large group showed a net profit of \$814 per store, or 0.6 per cent of sales. The small and medium groups showed net losses of \$326 and \$421, respectively, per store. Expenses included all costs except interest on investment, which would have been nominal. Therefore, a zero net profit figure would not necessarily have indicated nonsuccess.

³ The contribution to total dollar sales volume by each type of commodity such as meats, groceries, and bakery products was estimated by each merchant interviewed. Operating expenses were allocated to each type of commodity in that proportion.

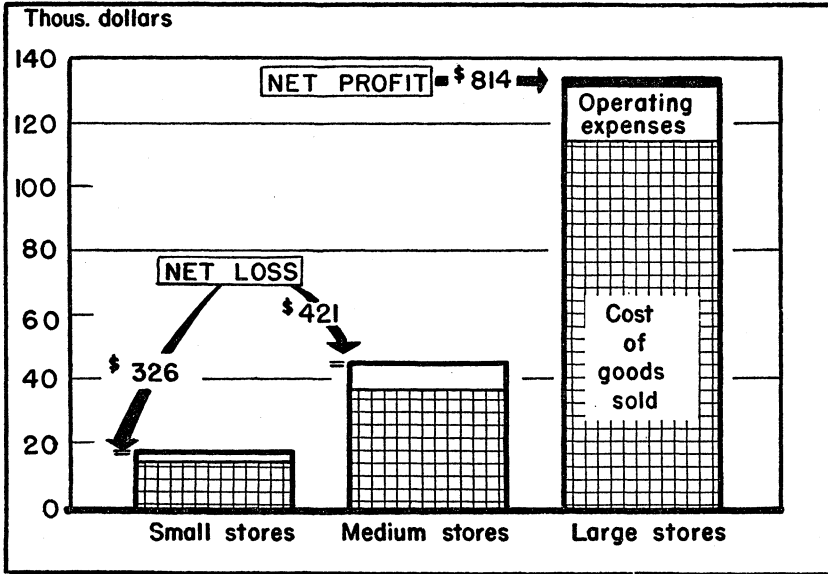


Figure 4. Average operating results by size group, 147 retail food stores, Alabama, 1952.

VOLUME OF SALES

Dairy products ranked third in importance among the general groups of products sold by the food stores studied, Figure 5.

Meats and groceries contributed 25.6 and 37.4 per cent, respectively, to gross dollar volume of sales in the average store of the sample studied. The remaining 37 per cent of gross sales was divided as follows: bakery products, 10.2; produce, 9.3; other dairy products, 6.5; fluid milk products, 5.8; non-foods, 3.9; and frozen foods, 1.3 per cent.

Sales of meats, produce, frozen foods, and groceries increased, not only in terms of dollar value but also in relation to total sales, as store size increased. Sales of other commodities also increased, but were relatively less important as gross volume of sales increased. Fluid milk products showed the greatest decrease in relation to total sales, from 11.1 in the small stores to 4.3 per cent in the large group. The average large store sold almost three times the amount of fluid milk products sold by the average small store. On the other hand, the proportionate contribution of milk to total sales was nearly three times as great in the small store as in the large, Appendix Table 7.

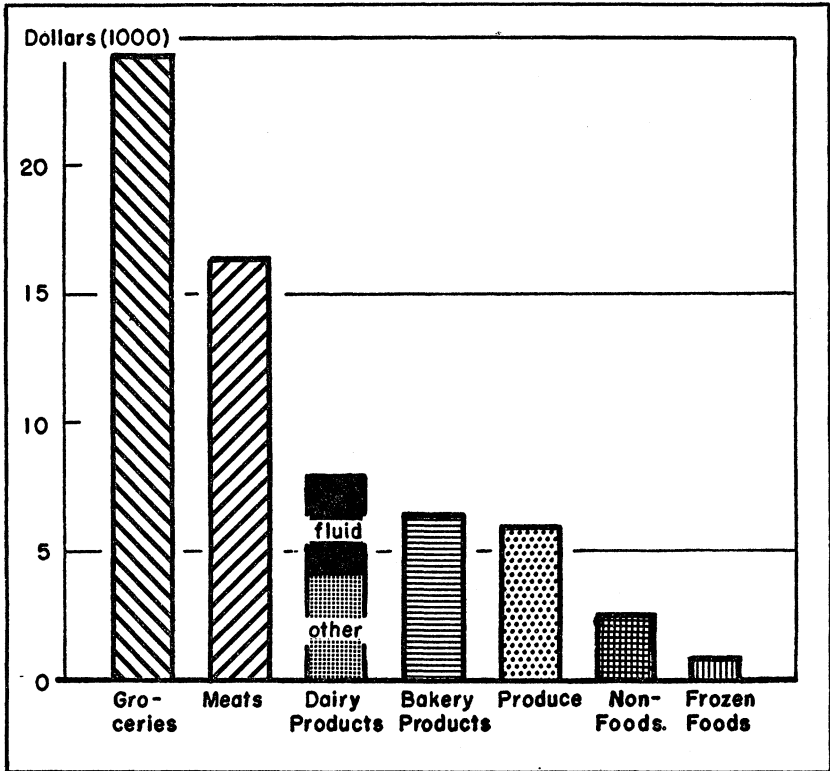


Figure 5. Average volume of sales per store by commodity groups, 147 retail food stores, Alabama, 1952.

MARGINS

The average gross margin⁴ on all items handled in the 147 stores was 15.3 per cent of gross sales. By the method of computation used, a gross markup on sales of 15.3 per cent was necessary to cover operating expenses for each commodity group. Gross operating expenses were allocated to each type of commodity according to its proportionate contribution to total sales. Consequently, the calculated average net profit on all commodities was approximately zero, varying from -5.7 on fluid milk products to 7.4 per cent on produce, Appendix Table 8.

Only three commodity groups — produce, frozen foods, and non-foods — showed an appreciable net profit.⁵ Meats, with a

⁴ The difference between sales value and cost of product.

⁵ The difference between gross margin and operating expense.

gross margin on sales of 14.9 per cent, averaged -0.4 per cent net, and groceries, bakery items, fluid milk, and other dairy products, showed larger net losses. Fluid milk was most out of line, with a net loss of 5.7 per cent. It was evident that net results, profit or loss, of merchandising the various commodities depended entirely on the relationship between the gross margin and operating expenses. Commodities with gross markups of more than 15.3 per cent of sales showed a net profit; those with gross markups of less than 15.3 per cent showed a loss. Most merchants realize that, in their highly competitive position, they cannot expect to obtain a margin on each individual item in the store sufficient to cover its cost of handling (7). Under these circumstances, profit maximization became a complex matter. The merchant had this mathematical problem: To maximize the overall return from the aggregate of goods in the store by pricing each individual item so that it would meet competition and, at the same time, to evolve an average gross margin sufficient to cover all costs. Some items, necessarily, would have less margin; other items, more. Unduly low margins on particular items meant other items in the store subsidized the sale of the low-margin items (8).

The apparent net losses shown by the individual groups of commodities did not indicate that actual cash losses were incurred in the merchandising process. It simply meant that the various commodities contributed more or less to the total returns of the store. In fact, not one of the commodity groups failed to contribute at least slightly more than the cash outlay for expenses from a low of 1.0 per cent for fluid milk products to a high of 14.1 on produce. The average return above cash expenses for all items was 6.7 per cent, Appendix Table 8.

The relationship between percentages of total sales and total gross profit contributed by each commodity group varied. Produce, generally a high markup group, constituted 9 per cent of total sales and 14 per cent of gross profit; non-foods, another relatively high markup group, constituted 4 per cent of sales and 5 per cent of gross profit. Fluid milk products showed the most unfavorable relationship of all commodities compared. Fluid milk products constituted almost 6 per cent of total sales but contributed less than 4 per cent of gross profit, Appendix Table 9.

RELATIONSHIP OF SALES TO DISPLAY SPACE

Variations in the relationship of sales to display space ranged from 3.2 : 1 for meats to 0.5 : 1 for non-foods, Figure 6.

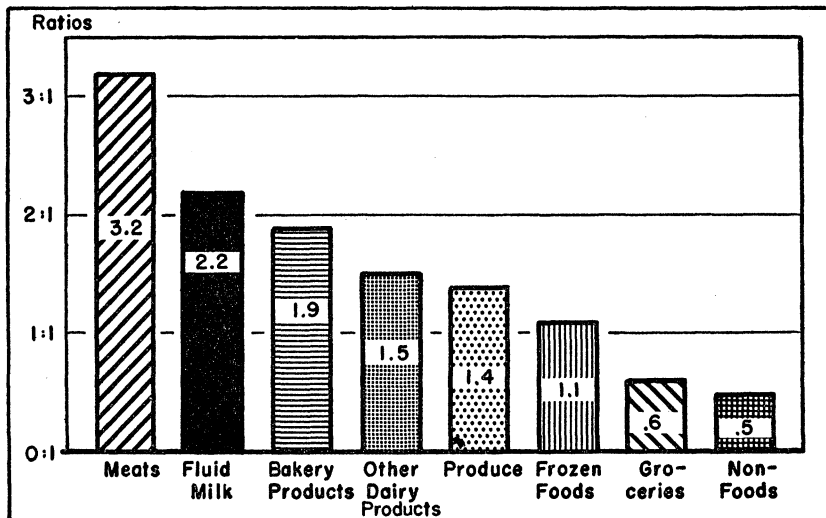


Figure 6. Ratios of percentage of total sales to percentage of display space occupied by each commodity group, 147 retail food stores, Alabama, 1952.

These ratios were evolved from the comparisons made between gross dollar sales of each type of commodity as a percentage of total sales and square feet of display space occupied by each as a percentage of total display space. This comparison showed fluid milk products to be one of the more efficient commodity groups in utilization of display space. Gross sales of fluid milk constituted 5.8 per cent of total dollar volume of sales and occupied only 2.6 per cent of the total display space in the average store studied. Only meats, with sales amounting to 25.6 per cent and occupying 8.0 per cent of the display space, averaged higher than fluid milk products in efficiency of space utilization, Appendix Table 10. Had work area and refrigeration space for meats been taken into consideration rather than display space only, meats would have dropped well below fluid milk.

SALES PER SQUARE FOOT OF DISPLAY SPACE

Fluid milk was second only to meats in annual gross sales per square foot of display space, Figure 7.

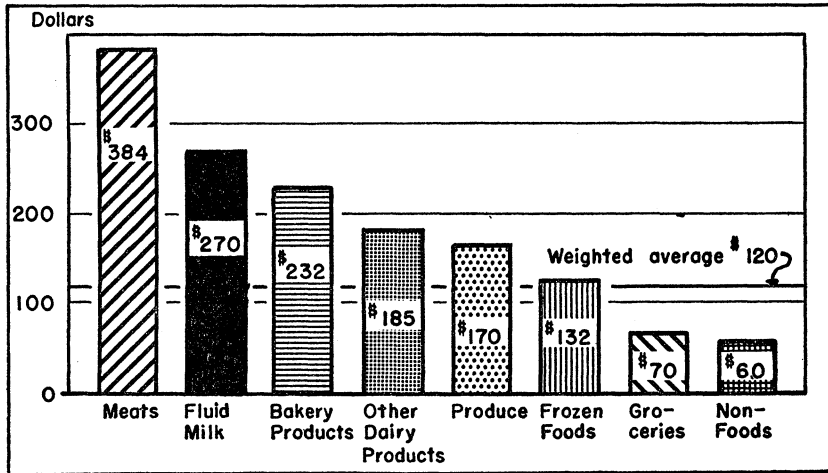


Figure 7. Dollar sales per square foot of display space by commodity groups, 147 retail food stores, Alabama, 1952.

RETURNS PER SQUARE FOOT OF DISPLAY SPACE

The total gross and net profit per square foot of display space varied among the commodity groups in each of the stores.

The average gross profit per square foot for all commodities in all of the stores was \$18; the over-all net profit was \$0.03 per square foot.

The average gross margin per square foot ranged downward from \$57 on meats to \$10 on groceries. Net profit per square foot was highest on produce, \$12.54, and lowest on fluid milk products, -\$15.39.

Gross sales of fluid milk products amounted to \$270 per square foot. This was second only to meat in sales per square foot, but the net loss per square foot incurred by fluid milk was greater than that of any other commodity group, Appendix Table 11.

GROSS PROFIT PER SQUARE FOOT OF DISPLAY SPACE

The calculated gross profit (sales return above cost of merchandise) per square foot of display space occupied by fluid milk was

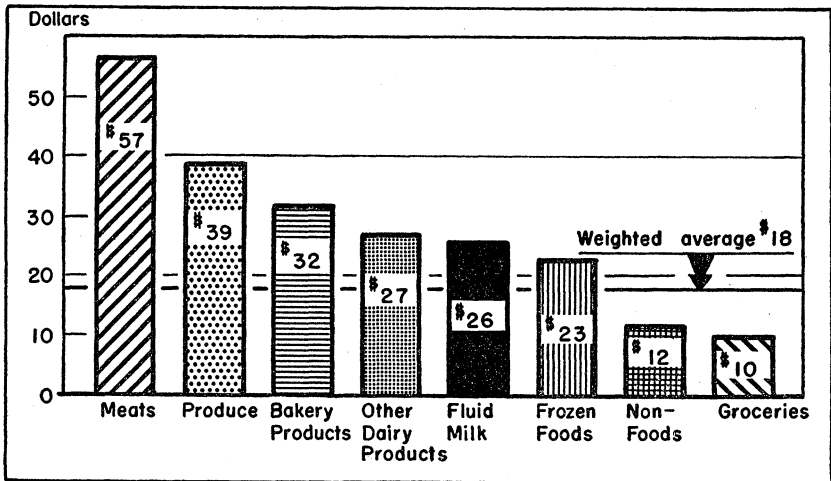


Figure 8. Gross profit per square foot of display space occupied by each commodity group, 147 retail food stores, Alabama, 1952.

above the weighted store average for all commodities. However, fluid milk was relatively less favorable than other commodity groups when compared on basis of gross sales per square foot than when compared on basis of gross profit per square foot of display space, Figure 8.

NET CONTRIBUTION PER SQUARE FOOT OF DISPLAY SPACE

Fluid milk items made the smallest contribution to net return above cash costs per square foot of display space. Meats and produce ranked first in this respect, with sales of each contributing eight times as much as did sales of fluid milk products, Figure 9.

When all costs, including operator's wages, were taken into account, fluid milk showed a relatively high net loss per square foot of display space.

The net loss from sales of fluid milk was the result of a small gross margin per dollar of sales. The margin was inadequate to cover average operating costs per dollar of sales, the base on which expenses were calculated. As shown in Figure 8, the gross profit on fluid milk per square foot of display space exceeded the weighted average and, had expenses been figured on this basis, groceries and non-foods would have yielded poorest (and other items more favorable) returns.

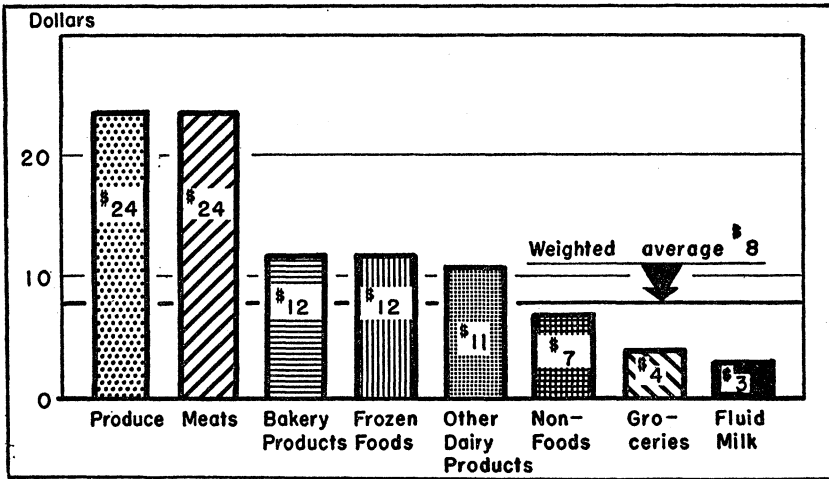


Figure 9. Net contribution to store costs above cash expenses per square foot of display space by commodity group, 147 retail food stores, Alabama, 1952.

SIGNIFICANCE OF GROSS MARGIN ON FLUID MILK

The percentage of selling price that was gross profit ranged from 9.6 on fluid milk to 22.7 per cent on produce, Figure 10.

An increase in gross profit margin from 9.6 to 15.3 per cent would be necessary to meet average operating expenses and permit fluid milk to carry its calculated share of the operating

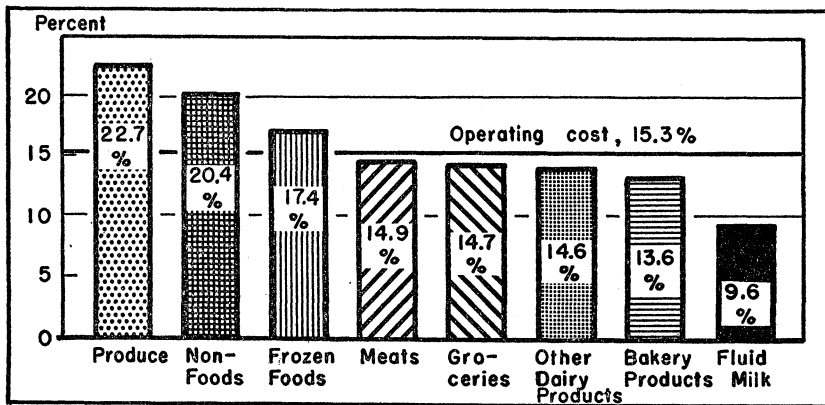


Figure 10. Percentage of selling price that was gross profit, 147 retail food stores, Alabama, 1952.

cost load. Any such change is not likely to take place since either competition or Milk Control Board rules would prevent the occurrence. The answer then, from the grocer's standpoint, seems to lie in selling more milk without increasing cash expense, or with only nominal increase in such expense, or in decreasing expense while maintaining existing volume of sales.

MERCHANDISING DAIRY PRODUCTS

Fluid milk⁶ was by far the most important dairy product handled in terms of sales volume, accounting for nearly half of all dairy product sales. Canned milk accounted for slightly more and cheese slightly less than one-sixth of sales. Ice cream ac-

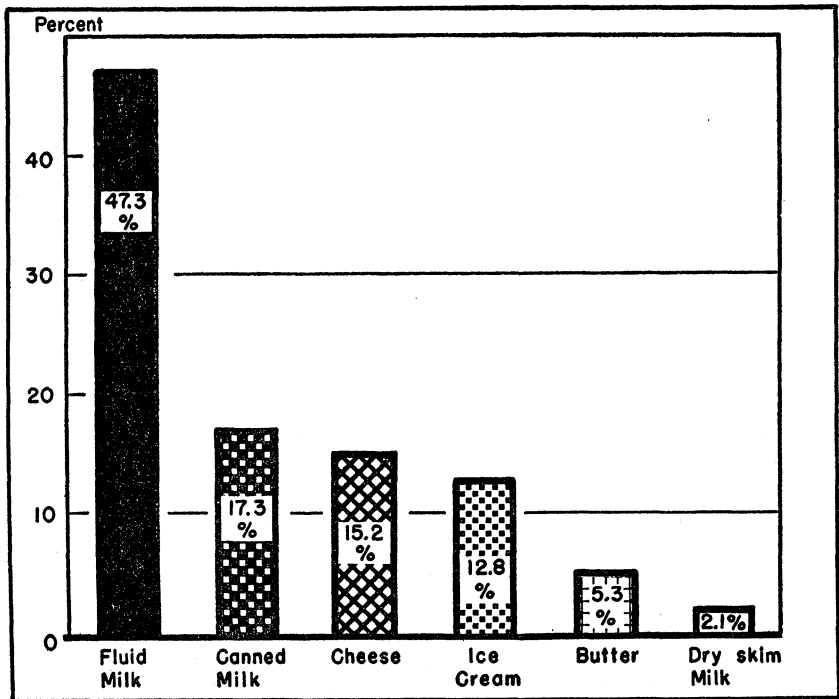


Figure 11. Proportion of all dairy product sales represented by each item, 147 retail food stores, Alabama, 1952.

⁶ For the purpose of this study the term "fluid milk products" was used to include all fresh and fluid milk items commonly handled by retail grocery stores; these were pasteurized milk, homogenized milk, skim milk, buttermilk, whipping cream, coffee cream, half and half, and chocolate drink.

counted for about one-eighth; butter, about one-twentieth; and dry skim milk, about one-fiftieth of sales, Figure 11.

Generally, sales of fluid milk and ice cream were relatively more important in the small stores, and other dairy items were less important than in the larger stores. Fluid milk and ice cream accounted for 68.4 per cent of dairy product sales in the group of small stores and for only 54.9 per cent in the large group.

Dairy products usually represented a higher percentage of total business in the small than in the medium and large stores, Figure 12.

All dairy products accounted for an average of 12.3 per cent of total sales of the 147 stores. A breakdown of this percentage by items showed fluid milk highest, 5.8 per cent, and dry skim milk lowest, 0.3 per cent. Sales returns from these items became proportionately less important as store size increased.

All dairy products dropped from 21.3 per cent of total sales in the small group to 9.9 in the large. Sales of fluid milk showed the greatest drop in relative importance, from 11.1 per cent in small stores to 4.4 in the large, Appendix Table 12.

Fluid milk accounted for a greater proportion, 47.3 per cent, of total sales of all dairy products in the average store. The percentage of total dairy sales constituted by fluid milk varied in-

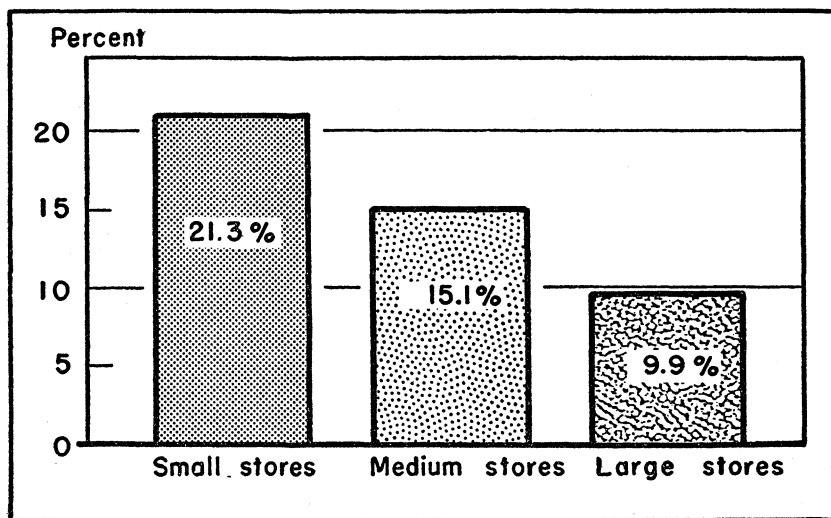


Figure 12. Dairy product sales as a percentage of total business, 147 retail food stores, Alabama, 1952.

versely to size of store; it ranged from 52.2 per cent in the small stores to 43.9 in the large.

Evaporated milk ranked second in proportion of total dairy sales, 16.3 per cent; followed by cheese, 15.2 per cent; and ice cream, 12.8 per cent. Condensed milk contributed the least to the total, 1.0 per cent, Appendix Table 13.

MERCHANDISING FLUID MILK PRODUCTS

The total volume of fluid milk products varied by kinds and by store. More pasteurized milk was sold, on the average, than other kinds. Homogenized ranked next, followed by buttermilk. The over-all average sales per day per store of all units was 52; the range in sales was from 29 units per day in the small group to 81 units in the large. Cream and other fluid milk items did not sell to an appreciable extent except in the large stores, Appendix Table 14.

Stores in the small and medium groups averaged selling about one-third more units of pasteurized milk than of the higher priced homogenized milk. This, plus the fact that cream sales were practically nonexistent in small stores and extremely low in the medium group, seems to indicate a difference in the economic status of the patrons served by the various groups. The relatively low-priced buttermilk was the only fluid milk item handled by 100 per cent of the sample stores, Appendix Table 15.

DISTRIBUTOR SERVICE. Although a majority of the grocers interviewed were in favor of trading with only one milk distributor, the average number of distributors patronized was 2.3 per store. The average number patronized ranged from 1.6 in the small group to 2.8 in the large. By individual store, the range was from a low of one to a high of six distributors.

Reasons given for buying milk from more than one distributor were, in the order of frequency: (1) consumers', or customers', preference, (2) better cartons used by certain distributors, (3) amount of advertising done by distributor, (4) certain customers' insistence on glass containers, and (5) grocers' preference for a variety of brands.

Fluid milk was delivered daily by distributors to all stores.

Only eight store operators, two each in the small and large and four in the medium group, expressed a willingness to accept fewer than daily deliveries from distributors. Only 12, less than

10 per cent, had enough refrigeration space for more than a 1-day supply of milk.

The distributor placed the product in the grocer's refrigerator in over 90 per cent of the stores. This service provided by the distributor, no doubt, greatly influenced the grocers' almost unanimous desire for daily delivery of milk. It not only eliminated the necessity of allocating more space to milk, with the attendant added refrigeration expense, but it also saved the grocer an appreciable amount of the labor cost of handling the product prior to sale, Appendix Table 16.

Another factor that influenced the grocer in his favoring daily delivery by distributors was the expressed desire of most of the stores' milk customers for the product "fresh daily."

SWEET MILK SALES.⁷ A greater proportion, almost 68 per cent, of the sweet milk purchases from the stores were 1-quart transactions. Two-quart purchases comprised the next highest proportionate amount, averaging about 20 per cent of milk sales in all stores. One-quart transactions were least predominant in the large group; they were most predominant, 81 per cent of total sales, in the small group. This further emphasized the difference in economic status of the customers served by the different groups. It also indicated the difference in the frequency of store visits between the customers of the small stores and those who patronized the larger ones, Appendix Table 17.

TYPES OF CONTAINERS USED. Although nearly one-third of the stores handled milk in glass containers, only a fraction over 10 per cent of the total volume sold by all stores was in glass, Appendix Table 18. Nearly all of the grocers preferred to handle paper containers only. The reason that some of them continued with glass containers was the dislike expressed by some of their patrons for milk in paper cartons. Those stores that handled milk in glass charged deposits of 2 to 5 cents per bottle. The 5-cent deposit was most common.

SALES BY DAYS OF WEEK. Forty-eight per cent of the total volume of milk handled by all of the stores was sold on Friday and Saturday. The latter was the heaviest day for milk sales, and Sunday was the lightest. Monday also was a good day for milk sales, followed by Thursday, Tuesday, and Wednesday, in

⁷ "Sweet milk" in this instance pertains to pasteurized and homogenized only.

that order. Although Sunday sales, as a percentage of total sales in all the stores, was very low, 4.1 per cent, they constituted a much higher percentage of sales in the stores that were open on Sunday, Appendix Table 19.

SALES BY TIME OF DAY. More milk was sold between 4 and 6 p.m. than during any other 2-hour period of the day. This was attributed to the fact that most customers were working people whose work day ended at around 4 or 5 p.m. and they shopped for food on their way home from work.

The period from 8 to 10 a.m. ranked next in volume of sales. This was the period during which stores that provided delivery service usually filled the orders that were to be delivered. It was also the period during which housewives did a considerable amount of their food shopping, Appendix Table 20.

CASH-AND-CARRY SALES. Seventy per cent of the fluid milk handled by all the stores was sold for cash and 87 per cent was carried home by the customer. Stores in the small group had the highest percentage of cash-and-carry sales of milk, 74 and 97 per cent, respectively, Appendix Table 21.

Methods of Display

Of the various types of boxes and display cases, the meat case was used in 16 per cent of the stores, and a closed-top drink box was used in 20 per cent. In most of the stores that used the meat case, milk was placed in the bottom section of the case, rather than in the upper display section where it would have been visible. Thirty-one per cent of the stores used upright cabinets with glass doors, and the remaining 33 per cent used open-top counter coolers for fluid milk display. The last two types of units were most prevalent in the large stores; they comprised 81 per cent of the display units used in this group. Sixty-two per cent of the stores in the small group used closed-top drink boxes and meat cases, Appendix Table 22. Improvement in the methods and types of displays used would help increase the volume of sales of fluid milk products.

Seventy-seven per cent of the boxes and display cases used for fluid milk products were arranged for customer self-service. The average amount of space occupied by the products was 14.0 square feet. Average space occupied ranged from 10.4 square feet in the small group to 16.1 in the large. This variation in

the amount of space was not proportionate to the volume of milk handled because some stores utilized the space more efficiently than others. The over-all average number of units sold per day per square foot was 3.7. Stores in the large group, with an average of 5.0 units per square foot, were most efficient in space utilization. Those in the small group, with an average of 2.8 units per square foot of space, were least efficient. This apparent inefficient use of space in handling fluid milk products was due partly to the fact that a relatively high percentage of the total volume was sold on Friday and Saturday. Therefore, on the average, much of the space reserved for milk products was not in use except on those 2 days. This could not always be avoided, but, in a majority of the stores there was much room for improvement in the use of cooler space. More efficient utilization of the space allocated to fluid milk products — space that must be refrigerated — might help to reduce one of the main cost items connected with handling these products.

LOCATION IN STORES. There was little consistency among the groups as to the location of the fluid milk products in relation to the general layout of the store. More stores in the large group used the generally recommended “good merchandising” practice of locating a product in such a position as to expose a maximum number of other commodities to the customer as he sought to purchase that particular item. An average of 71 per cent of the stores had their fluid milk boxes and cases in the back sections of their selling areas. The large stores were first in this category with 84 per cent. However, some of the stores accomplished the same or better results with milk products located other than in the back sections. Their layouts were so arranged that a customer desiring to purchase fluid milk would have to traverse practically the whole store in order to reach his objective. This practice would not augment fluid milk sales, but its use points out the added value of milk, as well as other dairy products, to the retail grocer as a “drawing card” item, Appendix Table 23.

Volume of Fluid Milk Products Sold

As would be expected, sales of milk increased as store size increased. However, the increase in volume of milk sold did not vary proportionately with store size. Although the average store in the large group did seven times the total volume of business

that was done by the average in the small group, it sold less than three times as much milk.

This probably was greatly influenced by the large number of "once a week" customers who patronized the larger stores. Many of the small neighborhood stores were open during all or part of Sundays and were located more conveniently than were some large stores. Thus, consumers were afforded the opportunity of buying items that might be needed when other stores were closed or were at a greater distance. Milk, apparently, is such an item. Another factor that influenced the inverse relationship was the greater number and variety of commodities handled as store size increased. Consequently, in the largest stores with their numerous selections of other commodities, milk was of less importance as a percentage of total sales.

Costs and Returns on Fluid Milk Products

The average gross markup on fluid milk was 10.6 per cent of cost or 9.6 per cent of sales price. This amounted to 2.22 cents per unit on a basis of all fluid milk products handled. Average markup varied by stores because of differences in kind and volume of products handled. For instance, the stores were allowed 2.21 cents on a quart of whole milk or chocolate drink; 2.10 cents on a quart of skim milk; 2.01 cents on the most commonly sold type of buttermilk; 4.00 cents on a half-pint of whipping cream; and 3.00 cents on a half-pint of coffee cream. Average gross markup ranged from 2.15 cents in the small group to 2.25 cents per unit in the large stores, Appendix Table 24.

OPERATING EXPENSES PER UNIT.⁸ Many difficulties were encountered in calculating the cost of handling fluid milk products. Numerous approaches to the problem of expense allocation were explored. The storekeepers interviewed were unanimous in suggesting that each product should bear a proportionate share of operating expenses based on the relationship between its sales value and the total dollar volume of business done by the store. That is, if sales of a given product amounted to 10 per cent of total sales, that product should bear 10 per cent of the operating expenses. This approach, using percentage of sales as a basis,

⁸ Each fluid milk item in each of the container sizes carried by the retail food stores included in the study was considered a unit. Cost allocations were made to those units in estimating costs per unit of handling these products (6).

seemed more realistic than others explored, such as floor space or display space occupied.

On this basis, average cost for all stores of handling a unit of fluid milk was 3.54 cents. The average cost per unit decreased as store size and volume increased, from 4.65 cents in the small group to 3.18 in the large, Appendix Table 25.

Although the distributor placed the milk in the cooler for the grocer in over 90 per cent of the stores, there was still much store labor involved in handling milk. Time was required daily to check the milk in as well as to pay the distributor in practically all milk transactions. About one-fourth of the stores used a clerk to get the milk from the refrigerator for the customer. Time was required for straightening the milk in the cooler and cleaning up spilled or leaked milk. Checkout service was another cost factor attributable as much to milk as to any other item – perhaps more so than to a number of others.

NET RETURNS PER UNIT. Labor costs made up 68 per cent of the operating expenses of the average store. Allowances for unpaid operator's and family labor amounted to about 44 per cent of the total. Since average total expense per unit was 3.54 cents and average markup per unit was 2.22 cents, fluid milk products apparently were net loss items throughout. However, in order to avoid possible erroneous conclusions from such an interpretation, another concept was evolved in which only cash expenses were considered, Table 3.

Fluid milk products, instead of being net loss items in the strictest sense, actually contributed somewhat to income above direct cash costs of the stores. Merchants find it desirable to handle any item as long as they derive a contribution to revenue over and above the direct costs of handling that item (1).⁹

TABLE 3. NET RETURN TO LABOR AND MANAGEMENT PER UNIT OF FLUID MILK SOLD, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store group			Average
	Small	Medium	Large	
	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Gross margin	2.15	2.22	2.25	2.22
Cash operating expense	2.00	1.80	2.06	1.99
NET RETURN TO LABOR AND MANAGEMENT	.15	.42	.19	.23

⁹ This assumes, of course, that handling any such item does not indirectly reduce cash income or increase cash expense elsewhere.

Comparison of Markups on Fluid Milk and Other Items

The average markup, as a percentage of cost, on all commodities was 18.1. The average markup on fluid milk products was 10.6 per cent, Appendix Table 26.

Because of the discrepancy between the spreads or gross profit margins on milk and the average for all commodities, the question arose as to whether there were factors involved in the handling of milk that justified the smaller profit margins for these products (9).

Some of the principal factors that influenced the cost of handling different commodities in stores were rate of inventory turnover, refrigeration, returnable containers, shrinkage, spoilage and waste, weighing and packaging, average amount per sale, and advantage of the commodity as a "leader."

No attempt was made to measure directly the effect of these other factors on the cost of handling milk in retail stores. Instead, markup¹⁰ comparisons were made between fluid milk and 25 other selected commodities, Figure 13.

Bread alone of the 25 selected commodities was comparable to milk in respect to rapidity of turnover. Normally, a complete turnover of both these commodities took place daily. The gross profit margin on bread was 18.6 per cent of cost. The margins allowed by the Alabama Milk Control Board for milk were much smaller, even though the sale of milk involved extra expense for refrigeration and the handling of some empty bottles.

Several of the selected commodities, such as soft drinks, bacon, and butter, also required refrigeration, although perhaps not so much as milk. The simple average of the gross profit margins on these commodities was 19.2 per cent of cost.

Sale of soft drinks, as well as bottled milk, involved the hand-

¹⁰ Gross margin, or markup, on selected items in the store was determined by noting the retail price marked on each product at the time of visit and then getting the cost of each from the grocer's wholesale invoice. These markups may have been slightly higher than actual year-round averages because of the time that observations were made. Normal, or week-day, prices were prevalent at the time of each visit to the store. No doubt, some of these items would, on occasions such as during weekend sales promotion, be marked at lower prices and used as "leaders."

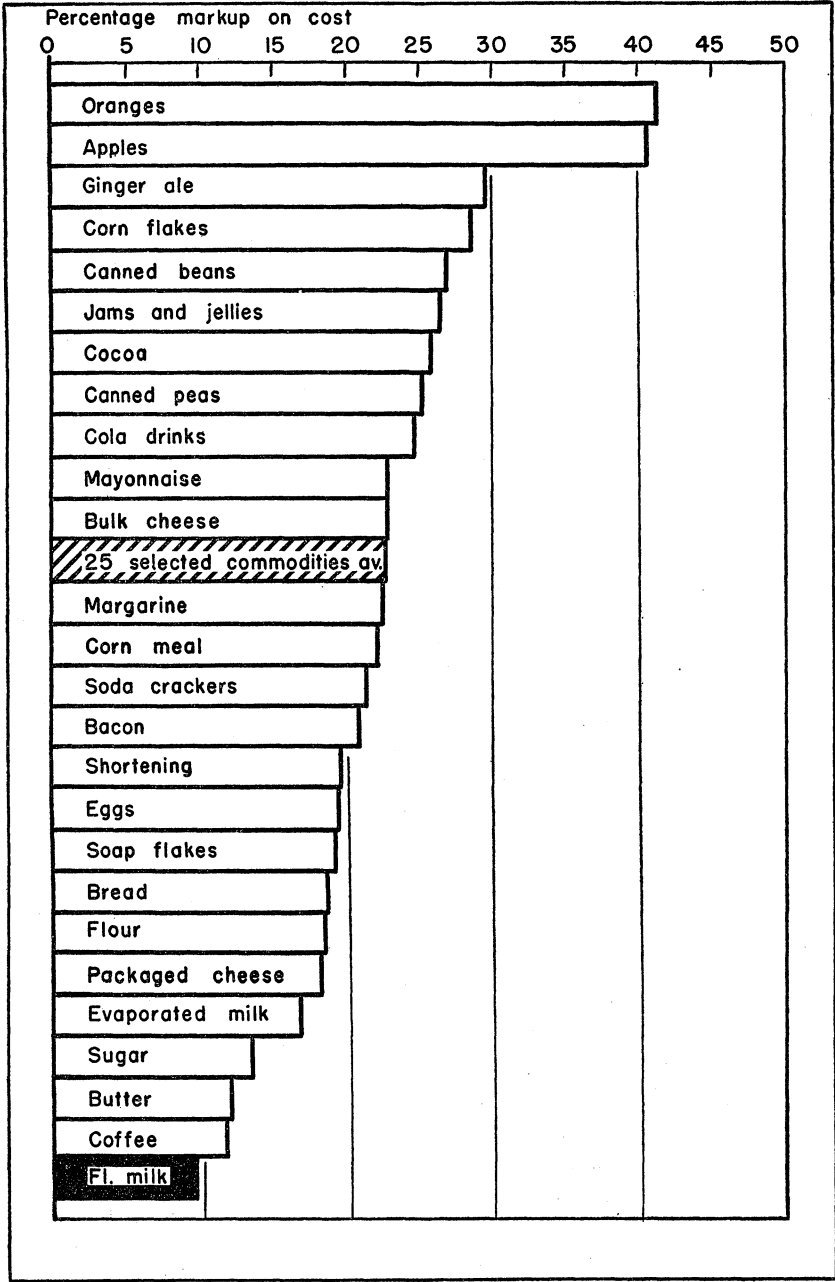


Figure 13. Percentages of gross profit on cost of fluid milk and other commodities, 147 retail food stores, Alabama, 1952.

ling of empty bottles. Soft drinks also required some refrigeration. The simple average of gross profit margins on these bottled products (not including milk) was 27.2 per cent of cost.

There was practically no shrinkage or waste in handling milk. In this respect milk was comparable to 21 of the 25 selected commodities. The simple average of gross profit margins on these 21 commodities was 21.1 per cent of cost. In respect to weighing and wrapping, the same 21 commodities were comparable to milk.

As to size of sale, milk was comparable to 12 of the 25 selected commodities. The simple average of the gross profit margins on these 12 commodities was 23.9 per cent of cost.

Only three commodities among those selected for comparison were considered by storekeepers as comparable to fresh milk in their ability to draw trade to the store; namely: evaporated milk, butter, and bulk cheese. Any retail food store probably would be handicapped if it did not include all four of these commodities among its offerings. The simple average of the gross profit margins on the three comparable commodities was 17.1 per cent of cost. The cost of handling fluid milk in the retail store apparently was considerably higher than that of handling evaporated milk because the fluid product required refrigeration and involved the handling of empty bottles (except when sold in paper containers).

The markup of 10.6 per cent allowed on fluid milk seemed somewhat low when compared with the 25 selected items, Appendix Table 27.

General Status of Fluid Milk Products in Stores

EFFORTS EXPENDED IN SELLING FLUID MILK. No store had a complete dairy department on a departmentalized basis. Only five stores, or 3 per cent, reported having made special efforts to increase fluid milk sales in 1952. Two had installed self-service milk coolers; two had made personal suggestions to their customers, urging the addition of milk to each purchase; and one had taken part in political activity aimed at obtaining enough margin on milk for the retail grocer to be justified in handling it.

ADVERTISING. Less than 3 per cent of the stores reported having advertised dairy products in general. None had advertised fluid milk specifically. All store operators felt there was no need for their incurring more expense in pushing the sale of an item on which they lost money. The general attitude was, "let the distributor advertise."

Less than 3 per cent of the stores had used fluid milk in tie-in promotions with other products, and only 3 per cent reported having taken an active part in recognition of June Dairy Month in 1952.

No significant changes were reported in sales of fluid milk products between 1951 and 1952 or between the first and last 6 months of 1952.

SCOPE OF FLUID MILK SALES. When questioned, the store operators estimated that over 97 per cent of their milk customers bought milk from them daily and that most of the remainder purchased milk every other day. A number of the grocers, particularly small operators, expressed the opinion that lack of purchasing power of many families was a reason for buying milk from stores rather than on regular delivery routes. These customers bought milk only as they could afford it. Lack of adequate home refrigeration probably contributed to the daily purchasing of milk from stores by many families.

STOREKEEPERS' OPINIONS ON HANDLING FLUID MILK

Practically all the grocers interviewed were of the opinion that the markup, or margin, allowed on fluid milk was insufficient to cover the cost of handling the product. All were in agreement in the belief that, with the allowed margin, milk was not a profitable item for the retail grocer. Some 10 per cent stated the opinion that the price of milk was too high. About the same proportion thought handling milk by the retail store was more trouble than it was worth to them and said they would not have handled it had they not considered it a necessary item in their inventories.

Although remarks made by the grocers about handling fluid milk in their stores were varied, their opinions reflected a high degree of dissatisfaction with the situation.

Fairly constant in the expressed remarks was recognition by

the grocers of what they considered their less than equal competitive position, with regard to the distributors, in selling milk at retail. This allegation was based on the fact that the retail price of milk delivered at the consumers home by the distributor, was the same as the price that the grocer was forced by law to charge at the store. In addition, the grocers were required to collect a sales tax on all milk sold by them. The distributors did not collect the sales tax. Actually, the grocers were in the unenviable position of charging the customer more for a commodity at the store than the distributors charged the customer for the same commodity delivered at his home.

To sell them a strictly fresh product and place it in a bag for ease and convenience in carrying were the main services expected from the grocer by customers who bought milk at the stores.

MARGINS SUGGESTED BY GROCERS. Store operators were asked what percentage markup on cost they thought would be fair on a quart of standard milk. Their replies were:

<i>Markup</i>	<i>Percentage of stores</i>
Under 15%	9
15%	31
18%	23
20%	34
Above 20%	3

Suggestions ranged from 2.2 to 5.5 cents per quart. The average suggestion was 18 per cent, or 3.9 cents per quart, based on the average price of milk in 1952. However, 34 per cent of the store operators suggested a 20 per cent markup on cost.

The markup of 20 per cent on costs, most frequently considered as fair, would slightly more than cover the calculated cost of handling the product. In giving their estimates of a proper margin, the grocers probably took into consideration the desirability of selling milk at the lowest price possible consistent with their costs. In the light of this study, their estimates apparently were based on facts.

MERCHANDISING OTHER DAIRY PRODUCTS

Cheese

Cheese was handled in 142, or 97 per cent, of the sample stores. The five stores that did not sell any cheese were in the

small group. The trend in dollar volume of cheese sales per store handling this product ranged from a \$506 average in the small group to \$2,356 in the large. The average for all stores was \$1,263.

The amount of display space devoted to cheese varied from 1.3 square feet in the small stores to 3.5 in the large, with an overall average of 2.4 square feet per store.

The stores in the large group sold almost twice as much cheese as did those in the small and medium groups combined. Annual sales per square foot were lowest in the medium stores. Although total sales in the small group were considerably less than those in the other two groups, sales per square foot were relatively high and merchandise turnover was greatest, 44 times during the year. The average turnover for all stores was 39; for the medium group, 35; and for the large, 40. The relationships between total sales, display space, and sales per square foot indicated that more display space could profitably be allocated to cheese items in the small and medium stores, Appendix Table 28.

Displays of cheese in 93 per cent of the stores handling it were concentrated at one location in the store. Only one store of the 142 had used cheese in tie-in promotions with other commodities; one had used it as a "drawing card" item; and two reported having taken an active interest in the October "Cheese Festival" in promoting cheese sales during 1952. None of the stores studied used a special cheese box or counter for display purposes.

Although 74 per cent of the stores bought cheese that was prepackaged, only 38 per cent of the total volume sold was in that form.

None of the stores did their own prepackaging of cheese. Practically all of the volume handled was dispensed as follows:

<i>Handling Method</i>	<i>Number of stores</i>	<i>Percentage of stores</i>
Cut to order by grocer	138	97
Bought prepackaged	105	74
Bought sliced and prepackaged	101	71

There was very little variety in kinds of cheese offered for sale in a majority of the stores. Seventy-three per cent of all cheese sold was cheddar.

Of the cheese other than cheddar that was sold, Swiss and brick amounted to 2 per cent each; cottage and cream, about 3 per cent each; and other kinds, including limburger, garlic, and smoked, 10 per cent. Spreads of various kinds and flavors accounted for 7 per cent of total cheese sales. Even this relatively limited variety of cheese was offered in only the largest stores. Through lack of interest in promoting the sale of cheese, a majority of the stores, especially of those in the small and medium groups, may be missing highly profitable benefits that would accrue through better merchandising.

Butter

Butter was sold in 121, or 82 per cent, of the stores. Three of the medium and 23 of the small stores did not handle it. The annual sales per store amounted to \$515. Sales value per square foot of display space was high because of the relatively small amount of space used and the high ratio of value to bulk. Sales per square foot ranged from \$374 in the small to \$535 in the large stores. The sales average for all stores handling butter was \$476 per square foot.

Merchandise turnover for butter was 21 in the large group, or only about half as high as in each of the other two groups. This was attributable to the practice of some of the largest operators of buying in large quantities in order to obtain price concessions. This buying practice, reflected by the high average investment in relation to average sales, pulled the average merchandise turnover for all stores down to 26. The average turnover in the small group was 39, and in the medium, 41, Appendix Table 29.

Grocers who handled butter were of the opinion that its high price made it prohibitive for the majority of consumers' budgets and, therefore, they made no particular effort to push its sale. "High price" was cited by all the grocers as the only problem encountered in selling butter. They were unanimous in suggesting that price be lowered as a solution for the problem. Only a few reported more than 5 per cent of their customers as having bought butter from them in 1952.

Evaporated and Condensed Canned Milk

One hundred per cent of the stores in each group handled evaporated milk. The sales value per store averaged \$1,304 for all stores and ranged from \$572 in the small group to \$2,349 in the large. The amount of display space devoted to this product varied from 3.2 square feet in the small stores to 4.9 in the large, with an average among all stores of 4.1 square feet. The sales per square foot averaged relatively high, \$318, and the average merchandise turnover was 39. This was a favored item in all groups and results showed its popularity with each operator justified, Appendix Table 30.

Only 65 per cent of the sample stores handled condensed milk. It was a slow-moving item in a majority of the stores that handled it. The sales average for all stores was \$126, ranging from \$63 in the small to \$177 in the large group. The average merchandise turnover was very low, 11 per year, and the sales per square foot, average of 96 stores handling this product, was only \$103. Sales per square foot ranged from \$59 in the small group to \$139 in the large, Appendix Table 31.

No canned milk of either category was used in tie-in sales by any of the stores during 1952. Three store operators reported selling less canned milk in 1952 than in 1951. All others reported no change in sales between 1951 and 1952, nor between the first and last 6 months of 1952.

Dry Skim Milk

Sales of dry skim milk, or non-fat solids, were of relatively little importance in a majority of the stores. The total value for all stores that handled it was \$24,623 and the average per store per year was \$210. Stores in the large group sold an average of 38 per cent more of this product than did the other two groups combined. The average store devoted 1.7 square feet of display space to dry skim milk and the average sales value per square foot was \$126, Appendix Table 32.

When the small amount of space used and the relatively high average rate of turnover, 28 times per year, were considered, dry skim milk was a fairly good item for stores handling it despite the relatively small contribution to total volume of sales. Only one

store reported having used this product with others in tie-in sales. One operator reported a 27 per cent decrease in sales of dry skim milk in 1952 as compared to 1951; five reported slight increases in 1952 over 1951; and one reported an increase of sales in the last 6 months over the first 6 months of 1952.

Ice Cream

Ninety-four per cent, or 138, of the stores handled ice cream. Total sales volume of ice cream in all stores was \$150,045, and the average per store was \$1,087. The average display space used was 14.2 square feet. There was little difference in amount of space used per store — 13.0 square feet in the small group and 15.3 in the large. The range in sales volume per store was much wider, from \$736 in the small stores to \$1,499 in the large. Consequently, the dollar returns per square foot were considerably higher in the larger stores.

Merchandise turnover for ice cream was lowest in the medium group. This was due to the high ratio of investment to sales in this group.

When frequency of delivery, twice-weekly in most cases, of ice cream to the stores and the fact that the ice cream was paid for on delivery were considered, the average turnover of 38 for all stores seemed inconsistent with efficient management of this product. This was particularly true of the small and medium stores, Appendix Table 33.

Ice cream in pint packages was common in all the stores that handled the product; 99 per cent of the stores handled 5- and 10-cent cups; and 96 per cent, assorted sticks and novelties. About 12 per cent of the stores handled quarts, and 31 per cent sold ice cream in half-gallon containers. Five stores handled bulk ice cream, but only one of the 138 dispensed it in gallon packages.

Ninety-six per cent of the equipment used for ice cream was owned by the distributing company. The location of the cabinets varied in the different stores. Although 78 per cent of the cabinets were in the front sections of the sales areas, less than 45 per cent were located near the checkout counters, Appendix Table 34.

COMPARISONS OF MAJOR ALABAMA CITIES

Of the 147 stores included in the study, 20 were in Gadsden, 39 in Montgomery, 30 in Mobile, and 58 in Birmingham. More than 80 per cent of the stores studied in Birmingham were self-service, but only 40 per cent of those in Gadsden were self-service. Only 62 per cent of the stores in Birmingham extended credit; all of those in Mobile provided this service. Average sales per store varied from \$40,889 in Montgomery to \$81,703 in Birmingham. The average store in Birmingham and Montgomery showed a net profit, but the average store in Gadsden and Mobile showed a net loss on the year's operation.

All of the stores studied in the four cities handled sweet milk. Sixty per cent of the stores in Birmingham handled skim milk; only 5 per cent of those in Montgomery handled this product. More than one-third of the stores in Gadsden used a closed-type drink box or regular refrigerator as a milk cooler. Only 12 per cent of the stores in Birmingham used this type cooler. Over 90 per cent of the milk coolers in Mobile stores were arranged for self-service, but only 54 per cent of the coolers in Montgomery stores were so arranged. Detailed comparisons of stores by cities are shown in Appendix Tables 35 through 44.

SUMMARY

A detailed study was made of the merchandising methods, costs, and returns of the 1952 operation of 147 retail food stores in Alabama.

The purposes of this study were (a) to determine methods and practices followed, services performed, volume of dairy products handled per store, and the relationship of dairy product sales to total sales; and (b) to relate these factors to the costs and efficiencies of retailing dairy products under different circumstances.

The stores studied were compared with respect to total dollar volume of sales; general characteristics of stores and services provided; costs and returns; operating results by type of commodity; returns per square foot of display space; volume and results of retailing selected dairy products; and volume, cost, markup, and methods of handling fluid milk products.

The 147 stores varied in total volume of sales from \$2,948 to \$1,250,000 per year. The average store had annual sales of

\$65,360. The sample stores were classified according to volume of sales into three groups—small, medium, and large. Sales averages for the three groups were \$18,472, \$46,675, and \$134,452, respectively.

All of the sample stores were independently owned. Ninety-three per cent were proprietorships, and 7 per cent were partnerships. Only one store was incorporated.

The average amount of floor space, display space, number of full-time employees, and number of customers per day varied directly with total sales volume.

Ninety-five per cent of the stores handled all foods; 63 per cent were arranged for self-service; 77 per cent extended customer credit; and 37 per cent provided home-delivery service. The types of service provided varied between and within the groups. A higher percentage of the small stores were "cash and carry," but the stores with the largest volume of sales provided neither credit nor delivery service.

The average store stayed open 12 hours per day, 312 days per year. Because of the Sunday hours kept by a number of the small operators, the average number of selling days per year was 318 for this group. The average number of days per week for all stores was 6.1.

Although there were net profit stores within each group, only the large store group showed an average net profit after all expenses of operation, including proprietor's compensation, were paid. The percentage of sales represented by operating expenses decreased as volume of sales increased. Labor constituted 68 per cent of the operating expense in the average store.

The percentage of total sales volume represented by the different types of commodities varied considerably by individual store and by group averages. The averages of all stores showed groceries contributing 37.4 per cent; meats, 25.6 per cent; bakery products, 10.2 per cent; produce, 9.3 per cent; fluid milk products, 5.8 per cent; other dairy products, 6.5 per cent; non-foods, 3.9 per cent; and frozen foods, 1.3 per cent, to total sales volume.

Produce, frozen foods, and non-food items showed an average net profit; other commodity groups showed net losses. Net results, profit or loss, by commodity group depended directly on the relationship between the gross profit margin and the percentage

of total sales represented by operating expenses. The gross margin on all commodities averaged 15.3 per cent of sales; operating expenses averaged the same; and net profit for the aggregate of commodities was zero. Percentage of net profit ranged from -5.7 on fluid milk products to 7.4 per cent on produce.

On the average, fluid milk products ranked second only to meats in sales volume per square foot of display space. However, in amount of gross profit per square foot, milk ranked fifth among the eight commodity groups and showed the most adverse net result of all.

Meats and fluid milk products ranked highest in efficiency of space utilization. Meats contributed 25.6 per cent to total sales volume and occupied only 8.0 per cent of the display space in the average store. Fluid milk constituted 5.8 per cent of sales and occupied 2.6 per cent of total display space. Relationships between percentages of sales and display space used by other commodity groups were progressively less favorable. Groceries showed the most unfavorable relationship of all - 37.4 per cent of sales and 64.4 per cent of display space.

All dairy products, including fluid milk, made up 12.3 per cent of total sales in the average store. Total sales of dairy products ranged from a low of 0.3 per cent for dry skim milk to a high of 5.8 for fluid milk. Canned milk sales, 2.1 per cent of total sales volume, ranked second, with cheese, 1.9 per cent, next, followed by ice cream, 1.6 per cent, and butter, 0.6 per cent.

Sales of dairy products increased as total volume of business increased, but was of less importance on a percentage basis in the larger stores. The percentage of total sales volume represented by these products dropped from 21.3 per cent in the small stores to 9.9 in the large.

Evaporated milk ranked second to fluid milk in total sales value per store. Cheese was third in volume per store, but ranked first in sales per square foot of display space.

Merchandise turnover of dairy products averaged relatively high in the larger stores, but the average turnover in all stores was lower than would have been expected for products of this type.

Fluid milk products amounted to 5.8 per cent of total sales volume in the average store. The average store sold 16,372 units

of fluid dairy products in 1952. Of this amount, 10,412 units, or 64 per cent, were whole milk. On a per-day basis, the average store handled 52 units of milk products.

Approximately 45 per cent of all the whole milk bought by housewives in the sample area was sold by retail stores. More pasteurized than homogenized milk was sold in each group of stores.

Buttermilk was the only fluid milk product handled by all stores, 99 per cent handled pasteurized, 96 per cent homogenized, and 71 per cent handled chocolate milk and/or drink. Cream items were not sold to an appreciable extent except in the larger stores.

Less than 10 per cent of the storekeepers reported having adequate refrigeration space for more than a 1-day supply of milk; 95 per cent wanted no less than daily delivery service from distributors; and milk was placed in the grocers milk cooler by distributors in 92 per cent of the stores.

Almost 68 per cent of the milk sales in the stores were 1-quart transactions; very few sales of 2-quart or larger sizes were recorded.

Approximately 90 per cent of all milk handled was packaged in paper containers.

More milk was sold on Friday and Saturday than on other days of the week. Sunday was a good milk day for the small neighborhood store that stayed open that day.

Fifty-nine per cent of the milk handled by stores was sold in the afternoon. Half of the afternoon sales were made between 4 and 6 p.m. The small neighborhood stores sold a large volume of milk after 6 p.m., when many of the large stores were closed.

Sales of milk were largely cash-and-carry transactions. Seventy per cent of the milk sold through stores was for cash and approximately 87 per cent was carried by the customer.

The boxes or cabinets in which milk was kept were of four general types, namely: closed-top drink box, upright cabinet with glass doors, open-top box with glass sides, and meat case. In over one-third of the stores, milk was kept in such a location that it was not visible to the customer. In these stores, "impulse" purchasing of milk was not possible. More of the "blind" units were used in the small and medium than in the large stores, but some of the large stores also used a type unit that hid the milk from view.

Seventy-one per cent of the milk coolers were located in the back sections of the selling areas, and 77 per cent were of the self-service type. The average amount of display space devoted to milk was 14.0 square feet per store, and the sales per square foot averaged 3.7 units per day.

The average markup on fluid milk was 2.22 cents per unit; operating expenses allocated to milk averaged 3.54 cents per unit. Cash expenses amounted to 1.99 cents of the unit cost. Therefore, the contribution made to operator's wage and to unpaid family labor by the sale of milk averaged 0.23 cents per unit.

The markup on fluid milk products averaged 10.6 per cent of cost. The average markup on all commodities excluding fluid milk was 18.6 per cent of cost. The markups on 25 selected commodities that were comparable to milk in factors affecting cost involved in handling averaged 22.8 per cent of cost. Analysis of factors affecting costs of handling various other commodities as well as fluid milk products disclosed no valid justification for the extreme discrepancy between the margin allowed on fluid milk products and the margins on comparable items.

Storekeepers' suggestions as to a fair markup on standard milk ranged from 2.2 to 5.5 cents per quart. The suggested markups averaged 18 per cent, or 3.9 cents per unit based on 1952 milk prices; the most frequent suggestion made (34 per cent of the store operators) was a 20 per cent markup on cost. The average markup suggested was only slightly higher than the calculated operating cost per unit of handling milk.

CONCLUSIONS

In general, the stores observed in this study merchandised products as efficiently, within their individual limitations, as could be expected. A majority of the stores, however, merchandised other commodities, and other dairy products such as cheese and canned milk, more efficiently than they did fluid milk.

Average sales of fluid milk amounted to \$270 per square foot of display space. All items average \$120. The relatively high rate of milk sale was realized despite the fact that grocers made no effort to "sell" fluid milk. The general attitude of those interviewed was one of passive discontent with handling fluid milk products in their stores. Practically all the grocers complained

that the markup allowed on fluid milk was too low and did not cover the operating expense incurred in handling the product. In the analysis of data pertaining to these costs in relation to the allowed markup, the grocers' attitude was justified to a great extent.

In order to more clearly understand the storekeepers' viewpoint, two concepts were considered. These were as follows:

1. The retail grocer's primary interest is profit. His pricing policy aims toward a maximum return on the aggregate of goods that he offers for sale. No item in the store moves at a particular high rate of profit. Competition forces a dependence on a rapid turnover at a low gross margin per unit. Gross markups on items are aimed at covering handling costs. The retailers' inability to accurately allocate costs of operation to the commodity to which they pertain causes some goods to be over-priced, some under-priced; on any given day, some items may carry a "short" markup and be used as leaders. However, over the year, each product must stand on its own, and each should return its share of the total profit.

2. In 1952, the Alabama retail grocery store operator was in the position of having his computed operating costs of handling a unit of fluid milk amount to about 60 per cent more than his allowed markup. His average operating cost per unit was 3.54 cents; his average markup per unit was 2.22 cents. Legally imposed regulations on milk pricing hampered him considerably in the methods he might have used in merchandising milk in his store. This was a year-round situation over which the store operator had no control.

Although, as this study indicates, the markup on fluid milk was considerably below the average markup on all commodities, milk was not the extreme loss item that a majority of grocers seemed to believe it to be. On the contrary, aside from its efficient utilization of space, high rate of turnover, high relative sales volume (especially in the smaller stores), and its ability to draw customers who might otherwise not be attracted into the store, each unit of milk sold added somewhat to the owner's or operator's "take home" pay. Since the size of this contribution to income depended directly on volume sold, grocers who made no effort to increase this volume, regardless of their opinions of the situation, seemed to have exercised a costly prerogative. The

attitudes evidenced by the storekeepers in their negative approach to merchandising fluid milk products were not in keeping with sound business practices.

Markup, dissatisfaction over controls, and the necessity of buying a milk license, were the three main causes of discontent among retail store operators in regard to handling fluid dairy products. The last two could be the real cause, and markup the excuse.

It would be difficult to conclude that the markup allowed retail stores was sufficient. On the other hand, it is doubtful that many stores would have used a higher markup had they been free to do so. Federal reports show retail store spreads of 0.5 to 4.0 cents per quart being used on pasteurized milk. Most markets range between 2.0 and 3.0 cents. The spread in Atlanta and Savannah is 2.5 cents (3).

No doubt, a majority of the storekeepers in Alabama could do a much better job of merchandising fluid milk products than is now being done in their stores. However, it is not logical to expect grocers in general to put forth any extra effort in selling fluid milk under existing milk regulations.

Perhaps a reappraisal of these regulations by the milk industry might disclose some means of improvement and, thereby, create a more cooperative attitude among retailers toward selling fluid milk products in their stores.

The merchants interviewed were aware of their potentialities for selling more fluid milk. A large majority said they would choose to sell less, citing the low margin.

The grocers themselves can do more than anyone else to overcome the disadvantageous effects of the low markup on fluid dairy products. They could do this by utilizing fluid milk and other dairy products to their fullest as "leaders." All of the store operators were aware of the necessity of having these products in their inventory. Why not take advantage of these "must" items and, even if no volume increase is possible, make them useful in selling other items in the store? This could be done simply but effectively through attractive, strategically located displays and tie-in promotions with other products.

As for the costs connected with handling fluid milk products, there was much room for increased efficiency in the major cost

factor, labor. Sixty-eight per cent of the cost of handling milk was a labor expense. In 23 per cent of the stores observed, it was necessary for a clerk to handle the milk for the customer. This could be eliminated by placing the product in a self-service cooler easily accessible to the customer. The time required for checking in and paying for milk could be lessened by patronizing only one distributor or as few as possible. The latter suggestion would not only save time but might also prevent unnecessary confusion during busy periods. In several stores, the efficiency at the checkout stand could have been improved. Also, a certain amount of waste of refrigeration space was noted in many stores, particularly in the cooler space allocated to fluid milk products. In most stores, too much space was used for the amount of milk refrigerated.

With milk production climbing steadily, the outlook for the dairy industry in Alabama and the whole nation is one of lower prices and larger surpluses. Consequently, it becomes of greater importance that the dairy industry, as a whole, overlook no possibility of increasing sales and consumption of milk products.

Much can be done by the milk industry that will increase the consumption of milk in Alabama. A greater amount, conceivably all, of the Grade A fluid milk now being produced could be sold and consumed as such. Progressive markets elsewhere have shown the way. The obstacles to increased sales of milk in Alabama are artificial and can be overcome by an honest, realistic appraisal and evaluation of all factors in the marketing process.

In a number of markets, sales of milk have been substantially increased through recognition of the potentialities of merchandising fluid milk through retail food stores.

Milk can and should be sold through stores at lower costs than when delivered from door to door. Store prices to the consumer should reflect these lower costs. Store prices need to be lower than home-delivery prices to make "carry-home" attractive (11). State price-fixing laws and regulations prevent this in Alabama.

A little over a year ago, store prices in Cleveland, Ohio, dropped from 1 cent below home delivery (in quart containers) to 5 cents below (in gallon jugs). Milk consumption went up 8 per cent for the year.

In Chicago, a quart of milk can be bought at stores for 4 to 7 cents under home-delivery prices. In 1930, Chicago stores handled only 6 per cent of the milk sold in the city; they now handle nearly 70 per cent. In this city of wide-open competition and high store sales due to lower than home-delivery prices, milk consumption per person went up 4 per cent between 1945 and 1949, while it was dropping 10 per cent in the nation (5).

Findings of this study indicate that the dairy industry needs to improve its relations with retail food store operators if the industry is to realize the potential sales volumes possible in these outlets. With improved relations between the dairy industry and the food dealer, the dealer would do the good merchandising job on dairy products of which he is fully capable.

If retail food stores in Alabama sell fluid milk to the extent of their capabilities, it is possible, even probable, that the so-called surplus of Grade A milk in the State could be transformed into a deficit.

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APPENDIX

APPENDIX TABLE 1. COMPARISON OF SIZE OF 147 INDEPENDENT FOOD STORES IN ALABAMA WITH AVERAGE OF ALL INDEPENDENT FOOD STORES IN U. S., 1952

Size (Annual sales)	147 stores in Alabama, 1952			370,000 stores in U.S., 1951 ¹		
	Percent- age of stores	Percent- age of sales	Av. sales per store	Percent- age of stores	Percent- age of sales	Av. sales per store
<i>Dollars</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Dollars</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Dollars</i>
300,000 and over	1.4	20.3	973,422	2.0	21.8	538,816
100,000-299,999	8.8	20.0	148,113	9.1	27.5	154,179
50,000- 99,999	33.3	36.1	70,740	18.1	24.8	69,552
30,000- 49,999	21.1	13.6	42,220	18.2	13.5	37,778
20,000- 29,999	16.3	6.6	26,312	13.0	5.9	23,125
Under 20,000	19.1	3.4	11,753	39.6	6.5	8,333
TOTAL OR AVERAGE	100.0	100.0	65,360	100.0	100.0	50,811

¹ An estimate by the Progressive Grocer, 1951.

APPENDIX TABLE 2. SERVICES AVAILABLE IN THE 147 INDEPENDENT FOOD STORES STUDIED IN ALABAMA COMPARED WITH AVERAGE OF ALL U. S. INDEPENDENT FOOD STORES, 1952

Item	Unit	Store size, Alabama				All U. S. independent food stores ¹
		Small	Me- dium	Large	Total or average of all	
Stores included	<i>No.</i>	52	47	48	147	370,000
Kind of food service:						
Groceries and meat	<i>Pct.</i>	85	100	100	95	59
Groceries only	<i>Pct.</i>	15	---	---	5	41
Type of customer service:						
Self-service	<i>Pct.</i>	37	70	85	63	54
Semi-self-service	<i>Pct.</i>	48	30	13	31	38
Clerk service	<i>Pct.</i>	15	---	2	6	8
Type of payment:						
Extended credit	<i>Pct.</i>	75	77	79	77	70
Cash only	<i>Pct.</i>	25	23	21	23	30
Type of delivery service:						
Store delivered	<i>Pct.</i>	13	34	65	37	48
Store did not deliver	<i>Pct.</i>	87	66	35	63	52

¹ An estimate by the Progressive Grocer, 1951.

APPENDIX TABLE 3. GENERAL CHARACTERISTICS OF STORES STUDIED, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Unit	Store size			Average of all stores
		Small Under \$30,000	Medium \$30,000-59,999	Large \$60,000 and over	
Full-time employees per store	No.	1.6	2.2	4.1	2.6
Total floor space per store	Sq. ft.	718	1,057	1,795	1,178
Percentage of floor space used for display	Pct.	41	45	49	46
Display space per store	Sq. ft.	291	474	888	545
Selling days per store per year	No.	318	308	310	312
Customers per day per store	No.	84	122	228	143
Annual sales per store	Dollars	18,472	46,675	134,452	65,360
Average sale per customer	Dollars	.69	1.24	1.91	1.46
Annual sales per full-time employee	Dollars	11,545	21,216	32,793	25,138
Merchandise turnover	No.	12	19	21	19

APPENDIX TABLE 4. SUMMARY OF SALES, GROSS PROFIT, OPERATING EXPENSES, AND NET PROFIT OR LOSS PER STORE, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size			Average of all stores
	Small	Medium	Large	
	Dollars	Dollars	Dollars	Dollars
Sales	18,472	46,675	134,452	65,360
Cost of goods sold	14,958	38,798	115,297	55,344
GROSS PROFIT	3,514	7,877	19,155	10,016
Proprietor's compensation	1,730	3,746	5,785	3,699
Other operating expenses	2,110	4,552	12,556	6,301
Total operating expenses	3,840	8,298	18,341	10,000
NET PROFIT OR LOSS	-326	-421	814	16

APPENDIX TABLE 5. SUMMARY OF OPERATING RESULTS AS PERCENTAGES OF TOTAL DOLLAR VOLUME OF SALES, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size			Average of all stores
	Small	Medium	Large	
	Per cent	Per cent	Per cent	Per cent
Sales	100.0	100.0	100.0	100.0
Cost of goods sold	81.0	83.1	85.8	84.7
GROSS PROFIT	19.0	16.9	14.2	15.3
Operating expenses	20.8	17.8	13.6	15.3
NET PROFIT OR LOSS	-1.8	-0.9	.6	.0 ¹

¹ Less than 0.05 per cent.

APPENDIX TABLE 6. SUMMARY AND ITEMIZED OPERATING EXPENSES, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size			Average of all stores
	Small	Medium	Large	
	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
Average sales per store	18,472	46,675	134,452	65,360
Cost of goods sold	14,958	38,798	115,297	55,344
GROSS MARGIN	3,514	7,877	19,155	10,016
Operating expenses:				
Salaries and wages (hired)	195	1,061	6,264	2,453
Rent	451	628	1,381	811
Depreciation and repair	187	362	811	447
Other cash expenses	815	1,552	3,465	1,916
Unpaid family labor	462	949	635	674
Unpaid operator wage	1,730	3,746	5,785	3,699
Total operating expense	3,840	8,298	18,341	10,000
NET PROFIT OR LOSS	-326	-421	814	16

APPENDIX TABLE 7. TOTAL DOLLAR VOLUME AND PERCENTAGES OF SALES BY TYPE OF COMMODITY, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size						Average of all stores	
	Small		Medium		Large			
	<i>Dollars</i>	<i>Pct.</i>	<i>Dollars</i>	<i>Pct.</i>	<i>Dollars</i>	<i>Pct.</i>	<i>Dollars</i>	<i>Pct.</i>
Annual sales								
per store	18,472	100.0	46,675	100.0	134,452	100.0	65,360	100.0
Meats	3,594	19.4	11,226	24.1	36,270	27.0	16,704	25.6
Produce	1,416	7.7	3,984	8.5	13,165	9.8	6,074	9.3
Bakery	1,905	10.3	4,982	10.7	13,553	10.1	6,692	10.2
Frozen foods	47	.3	617	1.3	2,031	1.5	877	1.3
Fluid milk products	2,057	11.1	3,605	7.7	5,849	4.3	3,790	5.8
Other dairy products	1,882	10.2	3,468	7.4	7,484	5.6	4,218	6.5
Non-foods	1,115	6.0	1,781	3.8	4,883	3.6	2,558	3.9
Grocery	6,456	35.0	17,012	36.5	51,217	38.1	24,447	37.4

APPENDIX TABLE 11. COMPARISON OF ANNUAL SALES, GROSS PROFIT, AND NET PROFIT PER SQUARE FOOT OF DISPLAY BY DEPARTMENTS, PER STORE AVERAGE, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	All items	Meat	Produce	Bakery	Frozen foods	Fluid milk products	Other dairy products	Non-food items	Grocery
	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
Small stores:									
Gross sales	63	117	65	80	49	198	110	43	40
Gross profit	12	22	18	15	11	19	21	10	8
Net profit	-1.12	-2.18	4.72	-1.84	-1.24	-21.99	-2.01	1.19	-.53
Medium stores:									
Gross sales	98	261	113	179	87	226	147	73	57
Gross profit	17	44	29	27	19	21	23	16	9
Net profit	-.89	-2.41	9.18	-4.92	3.73	-18.54	-2.80	3.44	-.85
Large stores:									
Gross sales	151	627	257	384	168	364	266	62	84
Gross profit	22	86	54	48	27	35	34	12	11
Net profit	.92	0.86	19.21	-4.86	4.12	-13.91	-2.45	3.38	-.11
Average of all stores:									
Gross sales	120	384	170	232	134	270	185	60	70
Gross profit	18	57	39	32	23	26	27	12	10
Net profit	.03	-1.83	12.54	-3.70	3.46	-15.39	-1.56	3.11	-.43

APPENDIX TABLE 12. SALES OF DAIRY DEPARTMENT ITEMS, EXPRESSED AS PERCENTAGES OF TOTAL DOLLAR VOLUME OF SALES, COMPARED WITH PERCENTAGE OF CONSUMERS' FOOD DOLLAR SPENT FOR THESE ITEMS IN BIRMINGHAM, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size			Average of all stores	Food dollar spent for each item ¹
	Small	Medium	Large		
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Cheese	2.48	1.93	1.75	1.87	2.35
Butter	.78	.74	.60	.65	1.60
Canned milk	3.19	2.38	1.88	2.12	2.10
Dried skim milk	.29	.26	.25	.26	.21
Ice cream	3.45	2.12	1.09	1.56	1.58
Fluid milk products	11.14	7.72	4.85	5.80	8.79
ALL DAIRY PRODUCTS	21.33	15.15	9.92	12.26	16.63

¹ Data from study made in Birmingham by BHNHE in 1948.

APPENDIX TABLE 13. DOLLAR SALES VALUE OF VARIOUS DAIRY DEPARTMENT ITEMS AND PERCENTAGES OF TOTAL DAIRY SALES CONTRIBUTED BY EACH, PER STORE AVERAGE, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size						Average of all stores	
	Small		Medium		Large			
	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>
Cheese	457	11.6	902	12.7	2,356	17.7	1,220	15.2
Butter	144	3.7	347	4.9	803	6.0	424	5.3
Evaporated milk	572	14.5	1,048	14.8	2,349	17.6	1,304	16.3
Condensed milk	17	.4	61	.9	174	1.3	82	1.0
Dry skim milk	55	1.4	122	1.7	334	2.5	167	2.1
Ice cream	637	16.2	988	14.0	1,468	11.0	1,021	12.3
Fluid milk	2,057	52.2	3,605	51.0	5,849	43.9	3,790	47.3
ALL DAIRY PRODUCTS	3,939	100.0	7,073	100.0	13,333	100.0	8,008	100.0

APPENDIX TABLE 14. VOLUME OF SELECTED FLUID MILK PRODUCTS HANDLED PER STORE PER YEAR, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Unit	Store size			Average of all stores
		Small	Medium	Large	
Type fluid milk product:					
Pasteurized	<i>Quarts</i>	3,241	5,902	8,868	5,930
Homogenized	<i>Quarts</i>	2,491	4,395	6,725	4,432
Skim milk	<i>Quarts</i>	63	227	599	291
Buttermilk	<i>Quarts</i>	2,965	3,794	6,065	4,242
Whipping cream	<i>Half-pints</i>	18	280	768	346
Coffee cream	<i>Half-pints</i>	0	144	592	239
Half and half	<i>Pints</i>	0	31	216	80
Chocolate drink	<i>Quarts</i>	415	658	1,238	762
TOTAL, ALL UNITS	<i>Number</i>	9,193	15,431	25,071	16,372
AVERAGE SALES PER DAY	<i>Number</i>	29	50	81	52

APPENDIX TABLE 15. PERCENTAGE OF STORES HANDLING EACH SELECTED FLUID MILK PRODUCT, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size			Average of all stores
	Small	Medium	Large	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Percentage of stores that handled:				
Pasteurized	98	100	100	99
Homogenized	92	96	100	96
Skim milk	8	30	56	31
Buttermilk	100	100	100	100
Whipping cream	4	40	69	37
Coffee cream	0	28	58	28
Half and half	0	4	6	3
Chocolate drink	56	77	83	71

APPENDIX TABLE 16. DELIVERY SERVICE DESIRED BY STORES, NUMBER AND PERCENTAGE HAVING REFRIGERATION SPACE FOR 2-DAY SUPPLY OF MILK, AND SOURCE OF LABOR THAT PLACED MILK IN COOLER, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size						Average of all stores
	Small		Medium		Large		
	<i>No.</i>	<i>Pct.</i>	<i>No.</i>	<i>Pct.</i>	<i>No.</i>	<i>Pct.</i>	<i>Pct.</i>
Less than daily delivery:							
Yes	2	4	4	9	2	4	5
No	50	96	43	91	46	96	95
Refrigeration space for 2-day supply:							
Yes	2	4	7	15	3	6	8
No	50	96	40	85	45	94	92
Placed in cooler by:							
Distributor	43	83	46	98	46	96	92
Grocer	9	17	1	2	2	4	8

APPENDIX TABLE 17. VOLUME OF SWEET MILK¹ SALES BY SIZE LOTS SOLD, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size			Average of all stores
	Small	Medium	Large	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Lot sizes:				
1-quart	80.9	69.7	61.4	67.8
2-quart	15.7	19.5	22.8	20.4
3-quart	2.2	5.0	7.2	5.5
4-quart	.3	2.3	3.0	2.3
Over 4 quarts	.1	.1	.5	.3
Half-gallon	.8	3.4	5.1	3.7
TOTAL	100.0	100.0	100.0	100.0

¹ Sweet milk in this instance pertains to pasteurized and homogenized only.

APPENDIX TABLE 18. PERCENTAGE OF VOLUME OF SWEET MILK¹ SOLD IN PAPER AND GLASS CONTAINERS, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size			Average of all stores
	Small	Medium	Large	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Paper	95.0	87.3	89.0	89.6
Glass	5.0	12.7	11.0	10.4
TOTAL	100.0	100.0	100.0	100.0

¹ Sweet milk in this instance pertains to pasteurized and homogenized only.

APPENDIX TABLE 19. VOLUME OF SWEET MILK¹ SALES BY DAY OF WEEK, 147 RETAIL FOOD STORES, ALABAMA, 1952

Day of week	Store size			Average of all stores
	Small	Medium	Large	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Monday	14.8	16.6	17.7	16.8
Tuesday	10.7	11.3	9.7	10.4
Wednesday	10.1	9.7	9.0	9.4
Thursday	11.0	11.4	11.4	11.3
Friday	19.8	20.3	19.8	19.9
Saturday	27.6	28.1	28.2	28.1
Sunday	6.0	2.6	4.2	4.1
TOTAL	100.0	100.0	100.0	100.0

¹ Sweet milk in this instance pertains to pasteurized and homogenized only.

APPENDIX TABLE 20. VOLUME OF SWEET MILK¹ SALES BY PERIOD OF DAY, 147 RETAIL FOOD STORES, ALABAMA, 1952

Period of day	Store size			Average of all stores
	Small	Medium	Large	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Before 8:00 a.m.	8.7	6.8	5.9	6.7
Between 8:00 and 10:00 a.m.	17.0	21.4	20.8	20.2
Between 10:00 and 12:00 a.m.	13.6	13.6	14.3	14.0
Between 12:00 and 2:00 p.m.	10.4	10.0	10.1	10.1
Between 2:00 and 4:00 p.m.	11.9	11.7	11.8	11.8
Between 4:00 and 6:00 p.m.	28.4	26.8	29.5	28.4
After 6:00 p.m.	10.0	9.7	7.6	8.8
TOTAL	100.0	100.0	100.0	100.0

¹ Sweet milk in this instance pertains to pasteurized and homogenized only.

APPENDIX TABLE 21. PERCENTAGE OF CASH-AND-CARRY SALES OF SWEET MILK,¹ 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size			Average of all stores
	Small	Medium	Large	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Percentage of milk sold for:				
Cash	74	66	70	70
Credit	26	34	30	30
Percentage of milk that was:				
Carried by customer	97	85	80	87
Delivered by store	3	15	20	13

¹ Sweet milk in this instance pertains to pasteurized and homogenized only.

APPENDIX TABLE 22. EXTENT OF USE OF VARIOUS TYPES OF BOXES AND DISPLAY CASES FOR FLUID MILK, 147 RETAIL FOOD STORES, ALABAMA, 1952

Type used	Store size			Average of all stores
	Small	Medium	Large	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Closed-top drink box	33	13	15	20
Upright cabinet, glass doors	21	23	50	31
Open-top counter cooler	17	51	31	33
Meat case	29	13	4	16
TOTAL	100	100	100	100

APPENDIX TABLE 23. LOCATION OF FLUID MILK DISPLAY CASES IN STORES, TYPE SERVICE, AND AVERAGE UNITS SOLD PER SQUARE FOOT PER DAY, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size			Average of all stores
	Small	Medium	Large	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Location of display case:				
Front	27	17	8	18
Center	11	13	8	11
Back	62	70	84	71
TOTAL	100	100	100	100
Type Service:				
Self-service	60	85	88	77
Clerk-service	40	15	12	23
TOTAL	100	100	100	100
Display space per store, square feet	10.4	16.0	16.1	14.0
Units fluid milk sold per square foot of display space per day	2.8	3.1	5.0	3.7

APPENDIX TABLE 24. TOTAL VOLUME, COST, SALES VALUE, AND MARKUP ON ALL FLUID MILK PRODUCTS SOLD, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Unit	Store size			Total or average
		Small	Medium	Large	
Units of fluid milk per store	No.	9,193	15,431	25,071	16,372
Cost	Dol.	1,860	3,263	5,283	3,426
Sales value	Dol.	2,057	3,605	5,848	3,790
Gross margin	Dol.	197	342	565	364
Gross margin on cost	Pct.	10.6	10.5	10.7	10.6
Gross margin on sales value	Pct.	9.6	9.5	9.7	9.6
Gross margin per unit	Cents	2.15	2.22	2.25	2.22
Units sold per store per day	No.	29	50	81	52

APPENDIX TABLE 25. OPERATING EXPENSES, AVERAGE PER STORE, AND AMOUNTS ALLOCATED TO EACH UNIT OF FLUID MILK PRODUCT SOLD, PRORATED ON A PERCENTAGE OF TOTAL SALES BASIS, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Small		Medium		Large		Av. all stores	
	Expenses to fluid milk		Expenses to fluid milk		Expenses to fluid milk		Expenses to fluid milk	
	Total	Per unit	Total	Per unit	Total	Per unit	Total	Per unit
	Dol.	Cents	Dol.	Cents	Dol.	Cents	Dol.	Cents
Hired labor	22	0.23	82	0.53	272	1.08	142	0.87
Building rent	50	.55	48	.31	60	.24	47	.28
Equipment depreciation and repair	21	.23	28	.18	35	.14	26	.16
Other cash expenses	91	.99	120	.78	151	.60	111	.68
Unpaid family labor	51	.55	73	.48	28	.11	39	.24
Unpaid operators' labor	193	2.10	289	1.87	252	1.01	215	1.31
TOTAL OR AVERAGE	428	4.65	640	4.15	798	3.18	580	3.54

APPENDIX TABLE 26. COMPARISON OF MARKUP ON FLUID MILK PRODUCTS WITH AVERAGE MARKUP IN ALL DEPARTMENTS, 147 RETAIL FOOD STORES, ALABAMA, 1952

Department	Number of stores handling		Average markup, percentage of cost
	Number	Per cent	
Meat	139	17.4	
Produce	144	29.4	
Bakery	147	15.8	
Frozen foods	66	21.1	
Other dairy products	147	17.0	
Non-foods	144	25.6	
Grocery	147	17.2	
ALL COMMODITIES, ¹ WEIGHTED AVERAGE	---	18.6	
FLUID MILK PRODUCTS	147	10.6	

¹ Fluid milk excluded. With fluid milk products included, the average was 18.1 per cent.

APPENDIX TABLE 27. COMPARISON OF FLUID MILK PRODUCTS WITH 25 OTHER SELECTED COMMODITIES, 147 RETAIL FOOD STORES, ALABAMA, 1952

Factor	Number of commodities comparable to fluid milk	Average gross markup, percentage of cost
	<i>Number</i>	<i>Per cent</i>
Inventory turnover	1	18.6
Refrigeration	3	19.2
Returnable containers	2	27.2
Shrinkage, spoilage, and waste	21	21.1
Weighing, wrapping, etc.	21	21.1
Size of sale	12	23.9
Sales leader	3	17.1
Average, 25 selected commodities	---	22.8
Fluid milk products	---	10.6

APPENDIX TABLE 28. SUMMARY OF CHEESE RETAILING RESULTS, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Unit	Store size			Total or average of all stores
		Small	Medium	Large	
Cheese:					
Stores handling	<i>No.</i>	47	47	48	142
Stores handling	<i>Pct.</i>	90.0	100.0	100.0	97.0
Sales, total	<i>Dol.</i>	23,790	42,391	113,110	179,291
Sales per store	<i>Dol.</i>	506	902	2,356	1,263
Average investment	<i>Dol.</i>	538	1,218	2,861	4,617
Display space, total	<i>Sq. ft.</i>	59.0	111.5	166.0	336.5
Display space per store	<i>Sq. ft.</i>	1.3	2.4	3.5	2.4
Annual sales per square foot	<i>Dol.</i>	403	380	681	533
Merchandise turnover	<i>No.</i>	44	35	40	39

APPENDIX TABLE 29. SUMMARY OF BUTTER RETAILING RESULTS, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Unit	Store size			Total or average of all stores
		Small	Medium	Large	
Butter:					
Stores handling	<i>No.</i>	29	44	48	121
Stores handling	<i>Pct.</i>	56.0	94.0	100.0	82.0
Sales, total	<i>Dol.</i>	7,472	16,327	38,546	62,345
Sales per store	<i>Dol.</i>	258	371	803	515
Average investment	<i>Dol.</i>	191	399	1,807	2,397
Display space, total	<i>Sq. ft.</i>	20.0	39.0	72.0	131.0
Display space per store	<i>Sq. ft.</i>	.7	.9	1.5	1.1
Annual sales per square foot	<i>Dol.</i>	374	419	535	476
Merchandise turnover	<i>No.</i>	39	41	21	26

APPENDIX TABLE 30. SUMMARY OF EVAPORATED MILK RETAILING RESULTS, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Unit	Store size			Total or average of all stores
		Small	Medium	Large	
Evaporated milk:					
Stores handling	<i>No.</i>	52	47	48	147
Stores handling	<i>Pct.</i>	100.0	100.0	100.0	100.0
Sales, total	<i>Dol.</i>	29,752	49,244	112,744	191,740
Sales per store	<i>Dol.</i>	572	1,048	2,349	1,304
Average investment	<i>Dol.</i>	1,002	1,342	2,570	4,914
Display space, total	<i>Sq. ft.</i>	169.0	200.0	234.0	603.0
Display space per store	<i>Sq. ft.</i>	3.2	4.3	4.9	4.1
Annual sales per square foot	<i>Dol.</i>	176	246	482	318
Merchandise turnover	<i>No.</i>	30	37	44	39

APPENDIX TABLE 31. SUMMARY OF CONDENSED MILK RETAILING RESULTS, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Unit	Store size			Total or average of all stores
		Small	Medium	Large	
Condensed milk:					
Stores handling	<i>No.</i>	14	35	47	96
Stores handling	<i>Pct.</i>	27.0	74.0	98.0	65.0
Sales, total	<i>Dol.</i>	886	2,846	8,328	12,060
Sales per store	<i>Dol.</i>	63	81	177	126
Average investment	<i>Dol.</i>	105	299	652	1,056
Display space, total	<i>Sq. ft.</i>	15.0	42.0	60.0	117.0
Display space per store	<i>Sq. ft.</i>	1.1	1.2	1.3	1.2
Annual sales per square foot	<i>Dol.</i>	59	68	139	103
Merchandise turnover	<i>No.</i>	8	10	13	11

APPENDIX TABLE 32. SUMMARY OF DRY SKIM MILK RETAILING RESULTS, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Unit	Store size			Total or average of all stores
		Small	Medium	Large	
Dry skim milk:					
Stores handling	<i>No.</i>	30	39	48	117
Stores handling	<i>Pct.</i>	58	83	100	80
Sales, total	<i>Dol.</i>	2,840	5,729	16,054	24,623
Sales per store	<i>Dol.</i>	95	147	334	210
Average investment	<i>Dol.</i>	140	233	499	872
Display space, total	<i>Sq. ft.</i>	39.5	54.0	102.5	196.0
Display space per store	<i>Sq. ft.</i>	1.3	1.4	2.1	1.7
Annual sales per square foot	<i>Dol.</i>	72	106	157	126
Merchandise turnover	<i>No.</i>	20	25	32	28

APPENDIX TABLE 33. SUMMARY OF ICE CREAM RETAILING RESULTS, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Unit	Store size			Total or average of all stores
		Small	Medium	Large	
Ice cream:					
Stores handling	<i>No.</i>	45	46	47	138
Stores handling	<i>Pct.</i>	87	98	98	94
Sales, total	<i>Dol.</i>	33,124	46,457	70,464	150,045
Sales per store	<i>Dol.</i>	736	1,010	1,499	1,087
Average investment	<i>Dol.</i>	872	1,375	1,685	3,932
Display space, total	<i>Sq. ft.</i>	584.0	664.5	718.0	1,963.5
Display space per store	<i>Sq. ft.</i>	13.0	14.4	15.3	14.2
Annual sales per square foot	<i>Dol.</i>	57	70	98	76
Merchandise turnover	<i>No.</i>	38	34	42	38

APPENDIX TABLE 34. LOCATION OF ICE CREAM CABINETS IN STORES, 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Store size			Average of all stores
	Small	Medium	Large	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Percentage of stores with cabinets located:				
Front	89	70	77	78
Center	4	28	19	18
Back	7	2	4	4
Near checkout	24	48	60	44

APPENDIX TABLE 35. GENERAL COMPARISONS OF FOOD STORES STUDIED, BY MAJOR CITIES AND AVERAGE OF 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Unit	147 Ala. food stores located in				Total or av. of all stores
		Gadsden	Montgomery	Mobile	Birmingham	
Stores included	No.	20	39	30	58	147
Kind of food service:						
Groceries and meat	Pct.	95	85	100	98	95
Groceries only	Pct.	5	15	0	2	5
Type of customer service:						
Self-service	Pct.	40	54	57	81	63
Semi-self-service	Pct.	55	36	43	12	31
Counter service	Pct.	5	10	0	7	6
Type of payment:						
Extended credit	Pct.	80	79	100	62	77
Cash only	Pct.	20	21	0	38	23
Type of delivery service:						
Store delivered	Pct.	30	38	33	40	37
Store did not deliver	Pct.	70	62	67	60	63
Average number of full-time employees	No.	2.8	2.4	2.5	2.8	2.6
Total floor space	Sq. ft.	1,377	984	1,074	1,294	1,178
Display space	Sq. ft.	672	410	525	602	545
Percentage used for display	Pct.	49	42	49	47	46
Average number selling days per year	No.	310	324	315	303	312
Average number of customers per day	No.	212	113	160	131	143
Average sales per store	Dol.	77,105	40,889	57,747	81,703	65,360
Average size of order per customer	Dol.	1.17	1.13	1.15	2.06	1.46
Merchandise turnover	No.	15	16	23	21	19
Sales per full-time worker	Dol.	27,538	17,037	23,099	29,180	25,138

APPENDIX TABLE 36. SUMMARY OF SALES, GROSS PROFIT, OPERATING EXPENSES, AND NET PROFIT OR LOSS PER STORE, BY CITIES AND AVERAGE OF 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Gadsden	Montgomery	Mobile	Birmingham	Average of
	20 stores	39 stores	30 stores	58 stores	147 stores
	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
Sales	77,105	40,889	57,747	81,703	65,360
Cost of goods sold	66,148	33,317	49,751	69,323	55,344
GROSS PROFIT	10,957	7,572	7,996	12,380	10,016
Proprietor's compensation	3,351	2,774	4,086	4,241	3,699
Other operating expenses	7,652	4,791	5,159	7,441	6,301
Total operating expenses	11,003	7,565	9,245	11,682	10,000
NET PROFIT OR LOSS	-46	7	-1,249	698	16

APPENDIX TABLE 37. SUMMARY OF OPERATING RESULTS AS A PERCENTAGE OF TOTAL DOLLAR VOLUME OF SALES, BY CITIES AND AVERAGE OF 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Gadsden 20 stores	Montgomery 39 stores	Mobile 30 stores	Birmingham 58 stores	Average of 147 stores
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Sales	100.0	100.0	100.0	100.0	100.0
Cost of goods sold	85.8	81.5	86.2	84.8	84.7
GROSS PROFIT	14.2	18.5	13.8	15.2	15.3
Operating expenses	14.3	18.5	16.0	14.3	15.3
NET PROFIT OR LOSS	-0.1	0.0 ¹	-2.2	0.9	0.0

¹ Less than 0.05 per cent.

APPENDIX TABLE 38. SALES OF DAIRY DEPARTMENT ITEMS EXPRESSED AS A PERCENTAGE OF TOTAL SALES, BY CITIES AND AVERAGE OF 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Gadsden 20 stores	Montgomery 39 stores	Mobile 30 stores	Birmingham 58 stores	Average of 147 stores
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Cheese	2.42	1.87	1.74	1.73	1.87
Butter	.44	.88	.74	.60	.65
Canned milk	2.12	2.64	2.43	1.83	2.12
Dry milk powder	.30	.19	.21	.28	.26
Ice cream	1.38	2.53	1.60	1.28	1.56
Sweet milk	3.18	5.58	6.44	2.89	4.02
Other fluid products	1.33	3.00	2.06	1.40	1.77
Eggs	4.79	5.09	5.20	5.90	5.11
Margarine	1.29	1.08	1.07	1.42	1.17
TOTAL	17.25	22.86	21.49	17.33	18.53

APPENDIX TABLE 39. PERCENTAGE OF STORES HANDLING SELECTED DAIRY PRODUCTS, BY CITIES AND AVERAGE OF 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Unit	Gadsden 20 stores	Mont- gomery 39 stores	Mobile 30 stores	Birm- ingham 58 stores	Average of 147 stores
Average number of units of fluid products handled per store per day	No.	51	48	66	49	52
Number of units handled per store per year	No.	15,696	15,591	20,755	14,863	16,372
Average number of distributors patronized	No.	1.8	2.2	3.4	2.0	2.3
Percentage of stores handling:						
Sweet milk	Pct.	100	100	100	100	100
Skim milk	Pct.	20	5	13	60	31
Buttermilk	Pct.	100	100	100	100	100
Whipping cream	Pct.	35	21	33	50	37
Coffee cream	Pct.	5	13	33	43	28
Half and half	Pct.	10	3	0	3	3
Chocolate drink	Pct.	75	67	83	67	71
Cheese	Pct.	100	90	100	98	97
Butter	Pct.	60	77	93	88	82
Evaporated milk	Pct.	100	100	100	100	100
Condensed milk	Pct.	70	41	70	78	65
Dry milk powder	Pct.	95	41	87	95	80
Ice cream	Pct.	100	87	100	93	94
Margarine	Pct.	100	90	100	100	97

APPENDIX TABLE 40. TYPE, ARRANGEMENT, AND LOCATION OF MILK COOLER USED, BY CITIES AND AVERAGE OF 147 RETAIL FOOD STORES, ALABAMA, 1952

Item	Gadsden 20 stores	Mont- gomery 39 stores	Mobile 30 stores	Birm- ingham 58 stores	Average of 147 stores
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Type of cooler:					
Closed-top drink box or regular refrigerator	35.0	25.7	20.0	12.1	20.4
Open-front upright cooler	25.0	12.8	70.0	25.9	31.3
Meat case or box	15.0	33.3	3.3	10.3	15.6
Open-top cooler	25.0	28.2	6.7	51.7	32.7
TOTAL	100.0	100.0	100.0	100.0	100.0
Arrangement:					
Self-service	75.0	53.8	93.3	83.8	76.2
Counter- or clerk-service	25.0	46.2	6.7	17.2	23.8
TOTAL	100.0	100.0	100.0	100.0	100.0
Location:					
Back of store	70.0	56.4	76.6	79.3	71.5
Front of store	25.0	33.3	6.7	10.3	17.6
Center of store	5.0	10.3	16.7	10.4	10.9
TOTAL	100.0	100.0	100.0	100.0	100.0

APPENDIX TABLE 41. VOLUME OF MILK SALES BY DAY OF WEEK, BY CITIES AND AVERAGE OF 147 RETAIL FOOD STORES, ALABAMA, 1952

Day of week	Gadsden	Montgomery	Mobile	Birmingham	Average of
	20 stores	39 stores	30 stores	58 stores	147 stores
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Sunday	3.6	9.6	3.8	0.7	4.1
Monday	18.0	13.7	19.4	16.4	16.8
Tuesday	10.1	9.6	10.2	11.1	10.4
Wednesday	9.0	9.3	10.9	8.5	9.4
Thursday	12.3	11.2	10.5	11.7	11.3
Friday	20.3	20.5	17.9	21.1	19.9
Saturday	26.7	26.1	27.3	30.5	28.1
TOTAL	100.0	100.0	100.0	100.0	100.0

APPENDIX TABLE 42. MILK SALES BY PERIOD OF DAY, BY CITIES AND AVERAGE OF 147 RETAIL FOOD STORES, ALABAMA, 1952

Period of day	Gadsden	Montgomery	Mobile	Birmingham	Average of
	20 stores	39 stores	30 stores	58 stores	147 stores
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Before 8:00 a.m.	9.5	10.0	6.6	3.5	6.7
8:00-10:00 a.m.	19.7	18.1	19.9	22.1	20.2
10:00-12:00 a.m.	13.6	13.1	13.6	14.9	14.0
12:00- 2:00 p.m.	10.2	10.3	9.9	10.2	10.1
2:00- 4:00 p.m.	13.3	10.7	13.1	11.0	11.8
4:00- 6:00 p.m.	27.8	27.8	24.2	32.5	28.4
After 6:00 p.m.	5.9	10.0	12.7	5.8	8.8
TOTAL	100.0	100.0	100.0	100.0	100.0

APPENDIX TABLE 43. SWEET MILK SALES BY LOT SIZE, BY CITIES AND AVERAGE OF 147 RETAIL FOOD STORES, ALABAMA, 1952

Size of sale	Gadsden	Montgomery	Mobile	Birmingham	Average of
	20 stores	39 stores	30 stores	58 stores	147 stores
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
1 quart	57.1	67.8	81.7	60.2	67.7
2 quarts	29.2	22.4	3.7	29.6	20.5
3 quarts	9.6	6.3	1.1	7.2	5.6
4 quarts	4.0	2.9	.2	2.5	2.1
Over 4 quarts	.1	.6	.0	.5	.3
Half-gallons	.0	.0	13.3	.0	3.8
TOTAL	100.0	100.0	100.0	100.0	100.0

APPENDIX TABLE 44. TYPE OF CONTAINER USED FOR SELLING SWEET MILK, BY CITIES AND AVERAGE OF 147 RETAIL FOOD STORES, ALABAMA, 1952

Type of container	Gadsden	Montgomery	Mobile	Birmingham	Average of
	20 stores	39 stores	30 stores	58 stores	147 stores
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Paper	99.8	95.4	79.9	88.7	89.2
Glass	0.2	4.6	20.1	11.3	10.8
TOTAL	100.0	100.0	100.0	100.0	100.0