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USING KNOWLEDGE OF CUSTOMER BEHAVIOR TO INCREASE SALES

By Hugh M. Smith, Market Development Branch, Marketing Economics Division,
for presentation at the National Commercial Refrigerator Sales Association Convention to be held in Las Vegas, Nevada, October 9, 1961

I appreciate the opportunity to meet with you to convey some of our findings concerning the retail customer along with a few suggestions for meeting the desires and preferences of these customers. By studying customer behavior, much can be learned and applied to increase sales. I plan to emphasize some of the various merchandising activities that affect customers in retail food stores.

The "well-being" of a retailer is closely correlated with his ability to operate and maintain a retail store that might be considered a desirable place to shop. When a retailer is in a healthy financial condition he is permitted leeway and discretion in services and facilities that he is able to provide his customers. It is these customers that I would like to discuss with you today.

I am sure that you are well aware of the close association of retail efficiency and profits. With the continuous construction of more and more supermarkets, the number of families per supermarket is continually declining. The task of the retailer in attracting sufficient customers to provide a profitable operation and getting them to come back again is becoming increasingly important as well as difficult.

The consumer does not express his preference for a commodity directly to the producer. Neither does the consumer express his preference for the type of packaging to the processor. The customer does not normally express satisfaction or dissatisfaction concerning store fixtures directly to the manufacturer. The customer, however, may express his dissatisfaction by shifting from one store to another or shifting from one commodity to another. The purchasing actions and opinions of a shopper provide a better understanding and basis for action to anyone attempting to maximize his selling potential. Experience, observation, and experimentation all provide information that is helpful in evaluating various merchandising techniques. With information available as to consumer preferences and demand, as measured by their purchasing actions, all marketing agents are in a better position to meet this demand. The trend today appears to place a manufacturer's representative in a position where he must assume more and more responsibility for services to a retailer. To do this, he should understand more about retail operations.

A common expression is heard today, "Food stores are all alike." If this is true, there is little reason for shopper loyalty. Retailers strive to be different in a manner that is attractive to their potential customers.

Retailers continually need a variety of promotional materials that can be changed frequently. They need store fixtures that will permit easy installation and removal of a wide variety of such promotional material. Sales results obtained from a number of merchandising and promotional efforts indicate that a retailer may successfully improve his competitive position by using various merchandising or promotional innovations that appeal to his customers.

Jumbled or dumped displays for example may create in the minds of many shoppers an image of an active, "lived-in" store. On the other hand, too much informality in display could well convey the impression of disorder. The retailer who knows how to create a favorable image and maintain it is most likely to get more repeat customers.

Recent years have seen many new developments in food retailing and in supermarket operations, in particular, for the purpose of creating a favorable impression on customers. Many of these developments gave the originating store a competitive advantage or at least something extra to offer their customers. However, as these extras are adopted by more and more stores, they soon become identified as a regular retail service or function. Frozen foods, for example, are now demanded by the customers of most supermarkets. Once the customer becomes accustomed to an innovation or service, she is not satisfied, and will usually demand something better. Now that frozen foods have established themselves as a regular department in most supermarkets, how can they be capitalized on to create a store pulling power for its customers? The answer may be by providing better quality. If customers do not get good quality products at one store, they will shift to another store, even if deterioration in quality is not caused in the retail store. Not only in frozen foods but for all the refrigerated foods, the manufacturer plays an increasingly important role, and should accept a correspondingly greater responsibility, as the proportion of retail refrigerated displays increase. It has been said that refrigerated fixtures permit the least flexibility in the store for merchandising and promotion, even though the ingenuity of management of many retail stores have partially overcome this handicap. Thus, manufacturers may have a unique opportunity and obligation to assist in providing the final consumer with a high quality product, not only through good equipment, but with educational and maintenance programs to insure proper use by the retailer.

Our research has been primarily concerned with the measurement of the reaction of customers to the different aspects of retail merchandising such as (1) type, location, and size of display, (2) quality and pricing of the products, (3) type, size, and color of package, and (4) shopping patterns and customer habits. Customer reaction to different merchandising techniques is normally measured by actual purchases rather than by what customers say they will purchase. In carrying out our research, we cooperate with cost and efficiency, market quality, and consumer opinion specialists to obtain as complete a picture as possible of the particular merchandising techniques being studied.

The majority of day to day merchandising decisions by the retailer are made on the basis of experience. For some problems, however, it is not possible for the retailer to determine the best merchandising practices without experimentation. Such experiments may range from simple observations to formal experiments.

Our work involves mostly formal experiments. To illustrate how formal experiments may be used to solve specific problems, let me briefly review some of our work involving refrigerated cases, and relating to the merchandising of individual commodities, such as hamburger.

Results of the hamburger study indicated that the display with a special price sign advertising fresh ground beef resulted in sales of this item about three percent greater than when no sign was used. Other research has indicated that more effective results are obtained by combining display promotions with newspaper advertising or price reductions, or both. It was also found in this study that the placing of ground round steak with round steak resulted in no greater sales than when placed with lower priced hamburger.

In a butter experiment it was found that pictorial cartons resulted in no greater sales than nonpictorial cartons. It was found in the same experiment that when butter was placed in the line of customer traffic before margarine, sales were consistently greater although not by a significant amount.

Market acceptance of a new variety of cantaloup developed by the Texas Agricultural Experiment Station was tested and found to compare favorably with other Texas cantaloups. This information was of considerable value to the Experiment Station in evaluating this new variety prior to encouraging producers to plant the melon on a large scale.

Consumer response to carrots displayed in various sizes of packages and in one pound bunches were tested. More carrots were sold with a combination display of one and two pounds polyethylene bags. The second best method was the combination display of 1-pound bags and 1-pound bunches.

The largest volume of cheese sales resulted when cheese was displayed in the greatest variety, including both branded packages and in-store packages in weights ranging up to 2 pounds. Sales by this method were greater than when only cheese packaged in the store was available to the customer or when only weights up to 1 pound were displayed. We also tested this in a formal versus a jumbled display, but no differences in sales were found.

It has been found that the promotion of lamb in the short run can result in increased sales.

A study to appraise the feasibility of retailing pork cuts by grade was conducted by placing pork steaks from fat and lean carcasses side by side and noting customer reaction to each. The same experiment was repeated for pork chops. Further research will be considered after development of grade standards.

The Cooperative Extension Service of the Department works closely with researchers and other sources to obtain the latest tested data for use in their educational program with retailers. A major activity in working with retailers is in improving efficiency of this final link in the marketing process. This work includes consideration of management, facilities, customer traffic, work methods, layout of workrooms and selling area, and other aspects of concern to the store operator. Some retail organizations, of course, have their own specialists who work with and study these and other factors.

Although Extension Service specialists do not recommend specific brands of equipment for use by retailers, they do recommend that equipment be used that has the capability to adequately take care of specific retailer requirements and that will contribute to the profitableness of the operation. It follows that any equipment not capable of meeting job requirements is not likely to be used, except by uninformed retailers. Unfortunately, a lot of inadequate equipment is in use today.

You are well aware of the competitive nature of the business of selling refrigeration equipment. You know that it is vital for a manufacturer to be aware of the latest developments that improve a piece of equipment and incorporate these developments into the designs for new machines as early as feasible to provide customers with the most modern and efficient facilities in a particular price range. One of the problems confronting manufacturers of refrigeration equipment is in providing machinery adequate for meeting the requirement specified in the frozen food code recently adopted by the Association of Food and Drug officials of the United States. Regardless whether this or other codes are to serve as a basis for regulating frozen food handling, manufacturers should be well aware of the implications. Equipment should be adequate, with leeway for safety, under a normal supermarket environment. Because of the importance in maintaining frozen food quality, again to provide a high quality product to the retail grocery customer, manufacturers with vision and adequate long range plans will be studying the design of more efficient equipment to meet low temperature requirements under the adverse conditions found in most modern supermarkets. While it is true that retailers may abuse equipment, or they may fail to follow maintenance instructions, it is still the manufacturer who is blamed by the retailer for performance shortcomings. One very effective method of promoting a product is through a good recommendation of a satisfied user. Conversely, it is difficult to overcome bad publicity arising from dissatisfied users. Educational and maintenance programs should result in less abuse of equipment.

Large retailers today are too busy with grocery operations to be engaged in the development of better refrigeration equipment. They will tend to accept the most advantageous "buy" that is available to them, considering quality, price, and other factors. Although price is a major consideration, if a retailer becomes dissatisfied with a piece of equipment after a few years of operation, the manufacturer will probably lose future sales.

I would like to discuss with you for a few minutes an area of research relating to customer behavior in grocery supermarkets. This information is useful to management by supplementing customary records such as sales, inventory records, and profit margins.

A unique feature of traffic pattern information is that data are obtained primarily about the customer rather than about the commodity. We know, for example, that the meat department in many stores accounts for about 20 percent of gross dollars. Here is an example of how customer traffic data differ. Now we see that of the total number of purchases made, 13 percent were made in the meat department (fig. 1). And, that 70 percent of the customers made purchases in the meat department (fig. 2). Or that the average customer purchased about 13 different commodities, about one and one-half of these purchases, on the average, being meat (table 1).

Table 1

	Purchases per customer
Grocery	6.1
Produce	2.2
Meat	1.6
Dairy	1.2
Bakery	.9
Frozen food	.5
Ice cream	.2
Total	12.7

To investigate meat purchases somewhat more in detail, we note that 39 customers out of every 100 purchase beef and 17 percent purchase poultry (table 2).

Table 2

Percent of Customers Buying

Beef	39
Delicatessen	36
Poultry	17
Seafood	13
Pork	11
Lamb	6
Appetizers	4
Veal	2

By an examination of traffic flow data, it is possible to find out which locations and which commodities are bypassed by the customer and which draw the most traffic. Judgment of the retailer is still necessary in determining why customers shop certain areas of the store and bypass others. After shortcomings are pinpointed, experience and experimentation are required to determine improved layouts and commodity arrangements.

The Department of Agriculture collected about 3,500 customer patterns in 13 retail supermarkets in the Boston, Massachusetts metropolitan area (fig.3). The patterns of movement and shopping habits were observed and recorded in each store for about 250 customers using shopping carts. Commodity purchases relate to the number of purchases--not value or number of units of a commodity. A number of different sizes or brands may be included as a commodity purchase. Purchases were indicated with an "X" and inspections by a "O".

A large proportion of purchases are reportedly made on impulse. It is, therefore, advantageous for retailers to expose every customer to as many different items as possible for maximum sales. The shopper whose path is illustrated in the chart purchased only 5 commodities. This shopper was not exposed to a very high proportion of the displays in this store. Only 31 percent of the locations in all the stores produced 68 percent of the total purchases.

One of the most useful items of information obtained in shopper behavior studies relates to the cumulative customer demand for certain commodities. It appears that more thorough shopping can be encouraged by placing the items that customers purchase most frequently in selected locations throughout the store. The objective of such commodity arrangement is to so locate the most feequently purchased items that a majority of customers must travel through as much of the store's selling area as possible to purchase them. Thus, customers are exposed also to high-profit and impulse items that are strategically placed. In addition, such placement may improve store efficiency by distributing customer traffic flow throughout the store in such a way as to prevent congestion in some areas and low traffic in others. By utilizing a store layout and commodity location plan acceptable to the majority of customers, which will encourage the most thorough shopping by exposing customers to the greatest number of items, the retailer can maximize his net profit without creating an adverse attitude on the part of the customers.

In the food section of the grocery department the proportion of customers buying a specific commodity or commodity group ranged from a high of 30 percent for cookies and crackers to a low of 1½ percent for dietetic foods (table 3).

Table 3

Percent of Customers Buying

Cookies and crackers	30
Coffee	25
Beverages	20
Ice cream	16
Spaghetti	14
Baby food	10
Canned meat	5
Dietetic food	1½

Fourteen percent of the shoppers purchased spaghetti. However, we know that we cannot definitely state that 14 percent of the shoppers will always purchase spaghetti in all stores. Therefore, for each different store we are studying we must consider not only the level of demand but also the fluctuations of demand or drawing power among stores. While only initial findings are available at the present, tentative groupings have been made to indicate the variability of demand for commodities showing a small variation between stores, an intermediate variation, and a large variation.

A commodity group with a low coefficient of variation indicates that such differences as may exist between stores have little effect on the proportion of customers purchasing a commodity. If the coefficient of variation is less than three-tenths of the customers buying, as are the commodities listed, the variation between stores is considered small (table 4). For example, the percentage of customers buying cookies and crackers generally varies from 24 to 36 percent from store to store averaging 30 percent, or a coefficient of variation of about one-fifth. If between three-tenths and four-tenths of the customers buying, as are these commodities, the variation is in an intermediate range (table 5).

Table 4

Percent of Customers Buying Groceries
in 12 Stores
and
Small Variation of This Percent Between Stores

	Percent
Cookies and crackers	30
Coffee	25
Vegetables, canned	24
Cereal	23
Beverages	21
Fruit, canned	18
Juices, canned	17
Soups, canned	17
Condiments	15
Seafood, canned	14
Baby foods	10

Table 5

Percent of Customers Buying Groceries
in 12 Stores
and
Intermediate Variation of This Percent Between Stores

	Percent
Candy	16
Sugar	15
Dressings	13
Preserves	12
Baking needs	12
Mixes	10
Tea	8

If the coefficient of variation is four-tenths of the customers buying, or more, as are these commodities, the variation is considered large (table 6). It is important to realize that this division into three categories is arbitrary, particularly for commodities near the dividing line. Shifting some of these commodities into adjacent categories may be desirable. Thus, knowledge of the relative customer pulling power of various commodities will assist the retailers in improving the amount of area covered. The majority of commodity groups which fall into each frequency of purchase category would normally be expected to do so because of the influence of one or more of the variables involved in these purchases. Thus Category I has commodities least affected and Category III has commodities most affected by one or more variables. Differences between stores that may cause fluctuation in the frequency with which customers purchase a commodity include such things as:

1. Location of the commodity group within the store
2. Customer income variation between the stores
3. Size of display
4. Eating habits (e.g. nationality, background, religious affiliations)
5. Seasonality and sales of a commodity group
6. Total number of items in a commodity
7. Competition from other stores

Table 6

Percent of Customers Buying Groceries in 12 Stores and Considerable Variation of this Percent Between Stores

	Percent
Spaghetti	14
Prepared foods	13
Pet foods	12
Processed milk	9
Potato chips	8
Spices and flavorings	6
Desserts	6
Specialties	6
Flour	5
Meats, canned	5
Syrups	4
Dehydrated vegetables	3
Vending machine items	2
Dietetic foods	1

Paper products led nonfood commodities in the proportion of customers purchasing (table 7). Variation in these purchases was also fairly low.

Table 7

Percent of Customers Buying Nonfoods in 12 Stores and Small Variation of this Percent Between Stores

	Percent
Paper products	35
Soap	27
Health and beauty aids	18

Cleansers and housewares fall into the intermediate category (table 8).

Table 8

Percent of Customers Buying Nonfoods
in 12 Stores
and
Intermediate Variation of this Percent Between Stores

	Percent
Cleansers	12
General	9
Housewares	8
Bleach and starch	6

As you would expect, tobacco and soft goods fall into the group with considerable variation between stores (table 9).

Table 9

Percent of Customers Buying Nonfoods
in 12 Stores
and
Considerable Variation of this Percent Between Stores

	Percent
Tobacco	8
Stationery	5
Concessions	4
Records	3
Wearing apparel	2

Now how can these data be put to use? If we have an area of a store that is being visited by only a few customers, the problem is identified by learning the exact proportion of customers that visit each store location. Various merchandising and promotion efforts can change this percentage. The percentage of customers visiting the location can also be changed by changing the commodity. For example, we know that about 10 percent of the customers buy baby food, with little variation in this percentage from store to store. If an area of the store draws less traffic than this, we can increase traffic to about 10 percent by placing baby food there.

It was observed that the number of customers moving all the way through a bakery department was significantly less than the number entering the department (fig. 4). Eighty percent of all customers passed location 1, while only 60 percent passed location 2, and only 42 percent passed location 3. To induce more customers to move through the entire department, exposing them to the impulse items, a demand item, white bread, was moved from location 1 to location 3, and other breads were placed in a ribbon display above the other items. After this change, cake sales at location 2 increased while bread sales remained the same.

Exposure of customers to a display and purchases from a display may be studied before and after any change that is made in the store. Fixtures may be changed, promotions may be tested, price changes may be studied. Increases or decreases in exposure and purchases can be of value in determining whether such change was effective. For example, note that the area just beyond produce is traveled by a considerably smaller percentage of customers than other areas around the perimeter (fig. 5). Traffic flow was improved by enlarging the fish and appetizer sections, and replacing the last three of the four island tables that contained miscellaneous foods and nonfoods with delicatessen items.

Note that the bakery and dairy departments are the two most heavily shopped departments, and that they are located side by side. Perhaps one of these--dairy for example, might advantageously be placed on the opposite side of the store directly following the produce section. This might induce more customers to go completely through the produce department and into the areas along the side directly following, and also reduce congestion on the other side.

One most interesting observation relates to a big fall storewide promotion in one of the test stores (fig. 6). Apparently as a result of this promotion traffic flow decreased in the grocery gondola area and increased along the perimeter of the store and around the gondola end displays. This could be the result of featured sale-priced items on special displays, primarily on end of gondolas. Normally, many end display items in this store were not sale priced. We might infer that this indicates that end displays with attractively priced items are a deterrent to thorough shopping.

In our study of 3,500 shoppers, a number of facts were uncovered that should not only be of interest but may be useful to management in their planning. Customers made about 55 percent of their purchases to the right of the path which they were traveling, but considerable variation was noted, depending upon specific store layouts and commodity locations within a store. As customers entered the store there was a tendency for them to move to the right and around the periphery of the store. This would be expected, because of the manner in which store fixtures were arranged. About 93 percent of all purchases from specific displays were made by customers the first time they passed the display location (table 10).

Table 10

Percent of purchases made--	Percent
The first time the customer passes a display.....	93
The second or later time the customer passes a display.....	7

I'd like to place a little more emphasis on the exposure of merchandise to the customers. I can illustrate this by a comment concerning the supermarket concept that is being introduced in Yugoslavia. Store managers in initiating self-service have grouped especially fast selling items, to meet daily needs, and often placed this group near the store entrance. The customer is not encouraged to shop the rest of the store. In our own studies we have

found that even if demand items are not at the entrance, it is easy to get a pattern like this (fig. 7). In a special tabulation of one test store, customers spending the most time on a shopping trip, as would be expected, covered the largest proportion of the total area of the store (table 11).

Table 11

Percent of Display Locations Passed
(Store "A")

Amount Spent by Customer	Percent
Under $5	42
$5 - $10	62
$10 - $15	72
$15 and over	80

Based on 13 test stores, the longer time spent in the store by the customer, the greater the expenditure (table 12). Customers averaged about 23 minutes in the store for each buying visit and spent about 31 cents per minute. This is the thorough coverage we would like to have (fig. 8).

Table 12

Average Expenditure Per Customer

Time in Store	
Under 15 Minutes	$3.28
15 - 30 Minutes	6.66
Average	7.12
31 - 45 Minutes	10.73
46 - 60 Minutes	14.95
Over 60 Minutes	18.22

For customers covering the entire store, you will note that they spent twelve more minutes in the store than customers not covering the entire store (table 13). They spent more each minute they were in the store and $6.60 more for the shopping trip.

Table 13

	Customers covering entire selling area	Other Customers
Average time in store	32 Minutes	20 Minutes
Average expenditure	$12.30	$5.70
Average expenditure per minute	39¢	28¢

A number of tables that I will now present hurriedly will illustrate the type of supplementary information that can be obtained incidental to the observation of customers. You will note from this table that customers spent more from 6 - 9 p.m. (table 14). Since the number of different commodities purchased per customer, for all stores, was about the same during different hours of the day, they also tended to purchase larger quantities of each commodity from 6 to 9 p.m.

Table 14

Hour of Day	Average Expenditure Per Customer
9 a.m. - 12 Noon.....	$7.54
12 Noon - 3 p.m.....	7.02
3 p.m. - 6 p.m.	6.74
6 p.m. - 9 p.m.	8.05
All Hours.....	7.12

Not only was the average expenditure per customer greater during the last part of the week than the first part, the number of commodities purchased per customer was 50 percent greater (table 15).

Table 15

Average Expenditure Per Customer

First part of week.....	$5.68
Last part of week.....	8.33

If we assume an index of 100 customers per hour during the week, the total number of customers shopping per hour was at an index of 115 per hour for the last of the week compared with an index of 72 per hour for the first part of the week (table 16). Further, the index of 73 from 9 a.m. to 1 p.m. compares with 103 for the afternoon, until 6 p.m. and with 131 after 6 p.m. These are not the actual number of customers, but relative figures using 100 as a base.

Table 16

Index of Customer Count Per Hour
(Average per hour for the week = 100)

	9 a.m. to 1 p.m.	1 p.m. to 6 p.m.	6 p.m. to closing	All Day
First of week.....	48	83	103	72
Last of week.....	90	114	146	115
All week.....	74	103	131	100

You will note that 47 percent of the customers spent under $5 (table 17). The question is, can customers be shifted to a higher bracket. At least, this type of information obtained after changes are made will enable the store manager to determine the sales influence of any change.

Table 17

Percent of Customers Spending Various Amounts

47 percent	Spent under $5
30 percent	Spent $5 up to $10
13 percent	Spent $10 up to $15
6 percent	Spent $15 up to $20
3 percent	Spent $20 up to $25
1 percent	Spent over $25

Here we note smaller expenditures for customers under 18 and over 50 (table 18). Should retailers cater more to these groups, or to customers already spending the most?

Table 18

Approximate Age	Customers in Each Age Group (Distribution of Sample)	Average Expenditure Per Customer
	Percent	Dollars
Under 18	3	2.68
18 - 30	28	7.47
31 - 50	52	7.64
Over 50	17	5.58
All Customers	100	7.12

We could raise a similar question about women and men shoppers (table 19).

Table 19

Average Expenditure Per Customer

Males (25% of customers)	$5.80
Females	7.51

Customers with a shopping list spent more time in the store, purchased a larger number of items, and as the slide shows, spent more on the average than customers without a shopping list (table 20). A retailer may decide to encourage the use of a shopping list.

Table 20

Average Expenditure Per Customer

With shopping list (average 15.4 commodities)	$8.63
Without shopping list (average 11.5 commodities.	6.48

Stores with the greater number of checkouts--in our study--were associated with a larger number and value of purchases (table 21).

Table 21

Number of Checkout Counters	Purchases Per Customer	
	Number	Value
5 - 6	11.8	$6.54
7 - 8	12.8	7.29
9 - 12	13.3	7.44

The same was generally true for stores with a larger selling area (table 22).

Table 22

Average Expenditure Per Customer

Square feet of Selling Area in Stores	
Under 9,000	$6.03
9,000 - 11,000	7.02
11,000 - 13,000	6.99
13,000 - 18,000	8.41

In summary, all aspects of the operation of a retail food store should be considered and assisted by organizations dealing with food retailers. While retail suppliers are primarily and immediately interested in selling their product, repeat sales can be expected only if some contribution is made to the welfare of the retailer. Specifically, I believe that equipment manufacturers should be concerned with:

(1) Selling modern equipment that will enable the retailer to make a profit.

Manufacturer representatives should be aware of the need to help retailers maintain a healthy financial condition. Not just overload him with equipment that will reduce the returns on investment that are so essential for firm growth. Looking at frozen food returns in some stores, it doesn't appear that they can sell enough to pay the costs, but the salesman who overloaded the retailer could really sell equipment!

A salesman should assist retailers in maximizing total store profit--as well as for a particular department. Be sure the equipment is needed to increase these profits.

(2) Satisfying retail customers -

Some manufacturers, for example, still make customers stand on their heads to get bags in produce cases.

(3) Aiding retailers in establishing preventative maintenance and quality maintenance programs for their perishable products.

(4) Protecting retailers from the pitfalls of unproven "concepts," "deals," "programs" and "promotions." These sales pitches should not be used to advantage over a retailer merely to sell equipment.

We have noted that it is increasingly important for retailers to give close attention to the problem of attracting customers and getting repeat business. In addition, to any basic plan of continuing efforts for developing a favorable merchandising image, the store manager will want to provide sufficient variation to indicate to the customer that the store is dynamic and flexible. Store fixtures that permit flexibility in promotion are especially helpful in taking advantage of such opportunities as community holidays, seasonal products, and special promotions.

The retailer in his effort to create a special or different image must be sure that it is a favorable one from a sales standpoint. Simply to be different is easy; to be different effectively requires a sound understanding of merchandising principles and techniques and, above all, of customer behavior. The retailer must rely primarily on experience as a guide in his efforts to stay out front, but he may find it expedient to supplement experience with research to evaluate effectiveness of relatively new merchandising techniques. Sales effectiveness of various techniques must be tested and findings implemented. Traffic pattern studies provide a relatively new and inexpensive tool to help the retailer to determine the best store layout and product arrangement.

Adequate planning and training is reflected eventually in a bright and cheerful place for customers to shop. Decorations and displays found in the store, and the friendliness exhibited by employees, reflect and are established as the personal preference or "taste" of the manager. Perhaps one of the best media for promotion is the store itself. The image formed by a customer undoubtedly goes a long way in determining repeat business--and profits.

PURCHASES IN EACH DEPARTMENT AS A PERCENT OF ALL PURCHASES

Retail Food Store Traffic Study, Boston, Mass., 1957

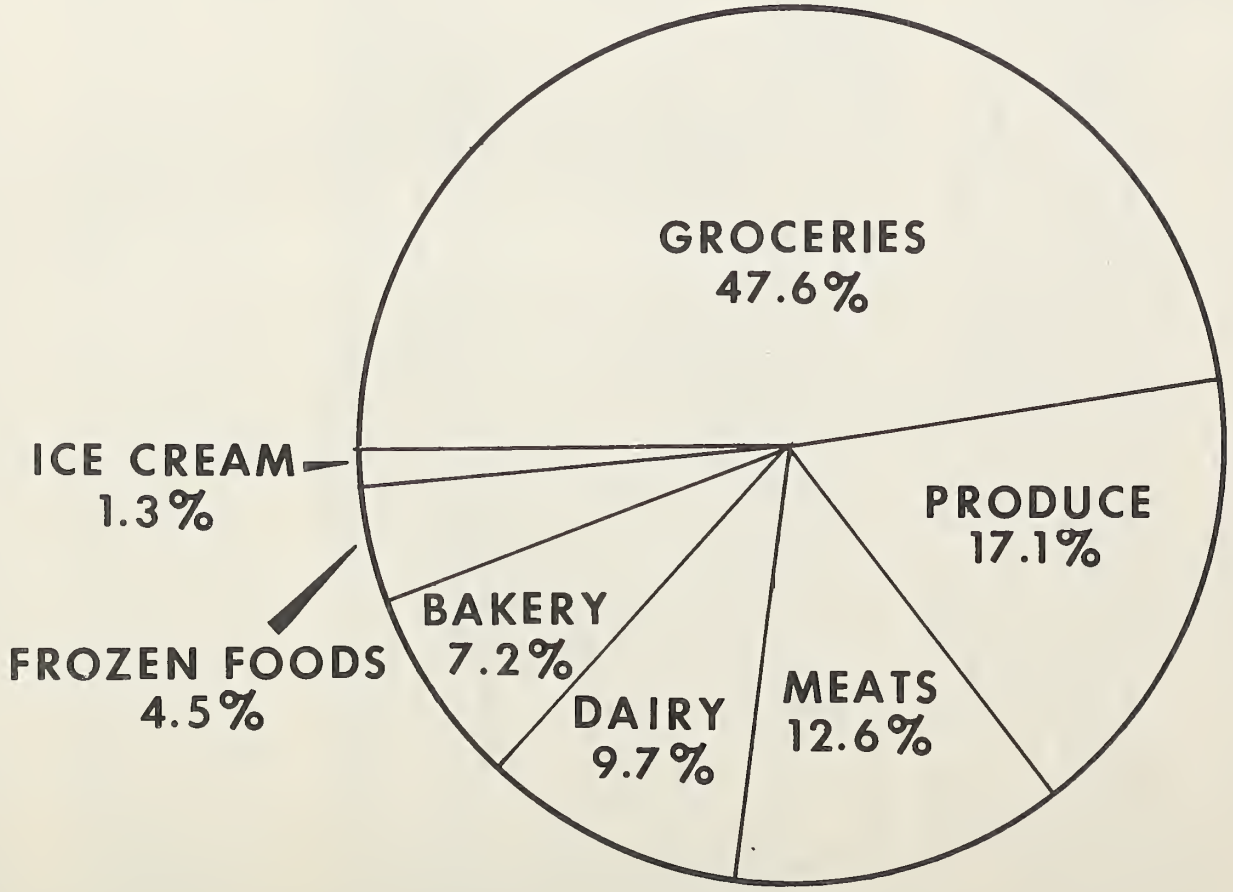

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Figure 1

PERCENT OF SHOPPERS MAKING PURCHASES IN EACH DEPARTMENT

Retail Food Store Traffic Study, Boston, Mass., 1957

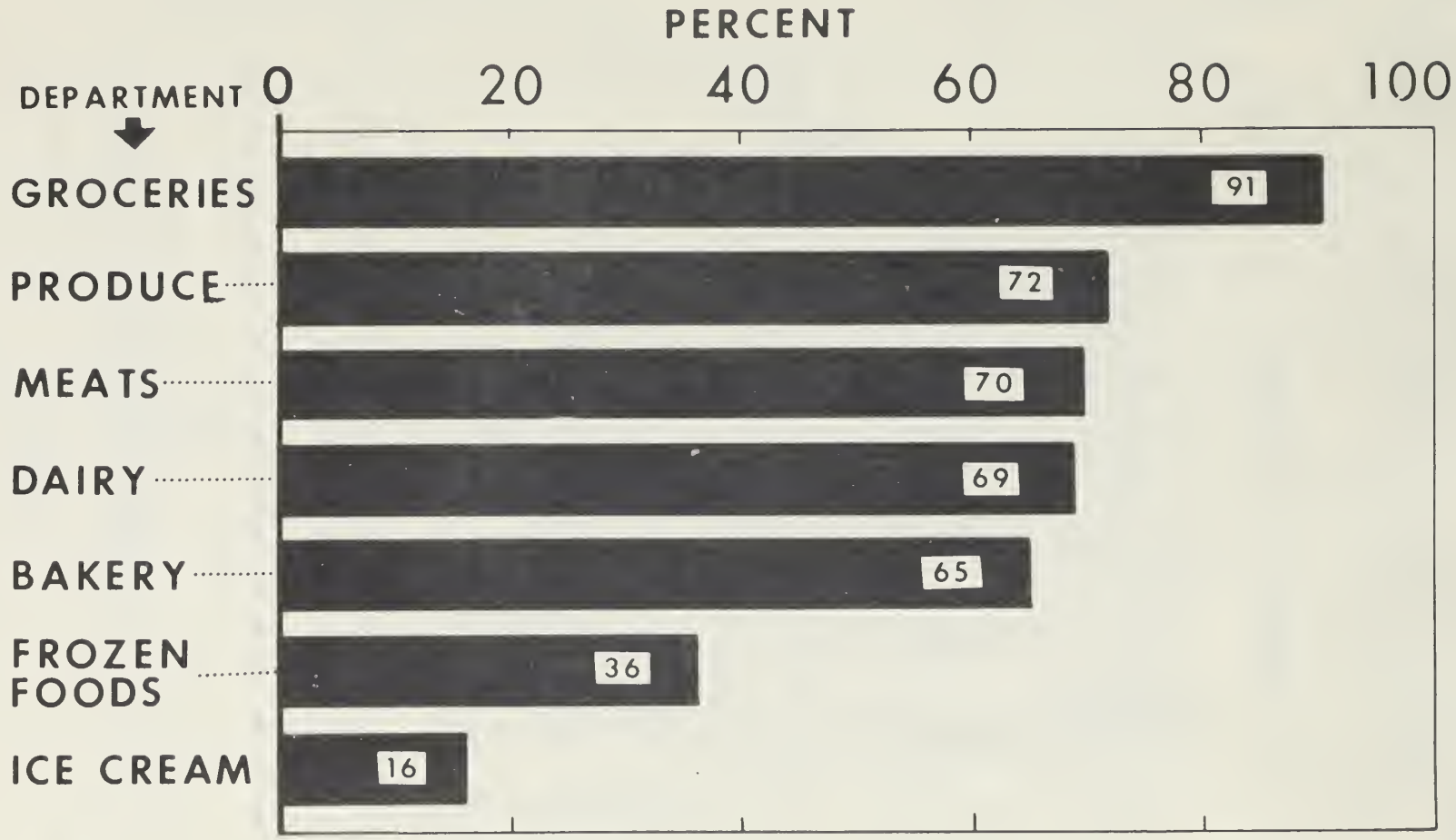

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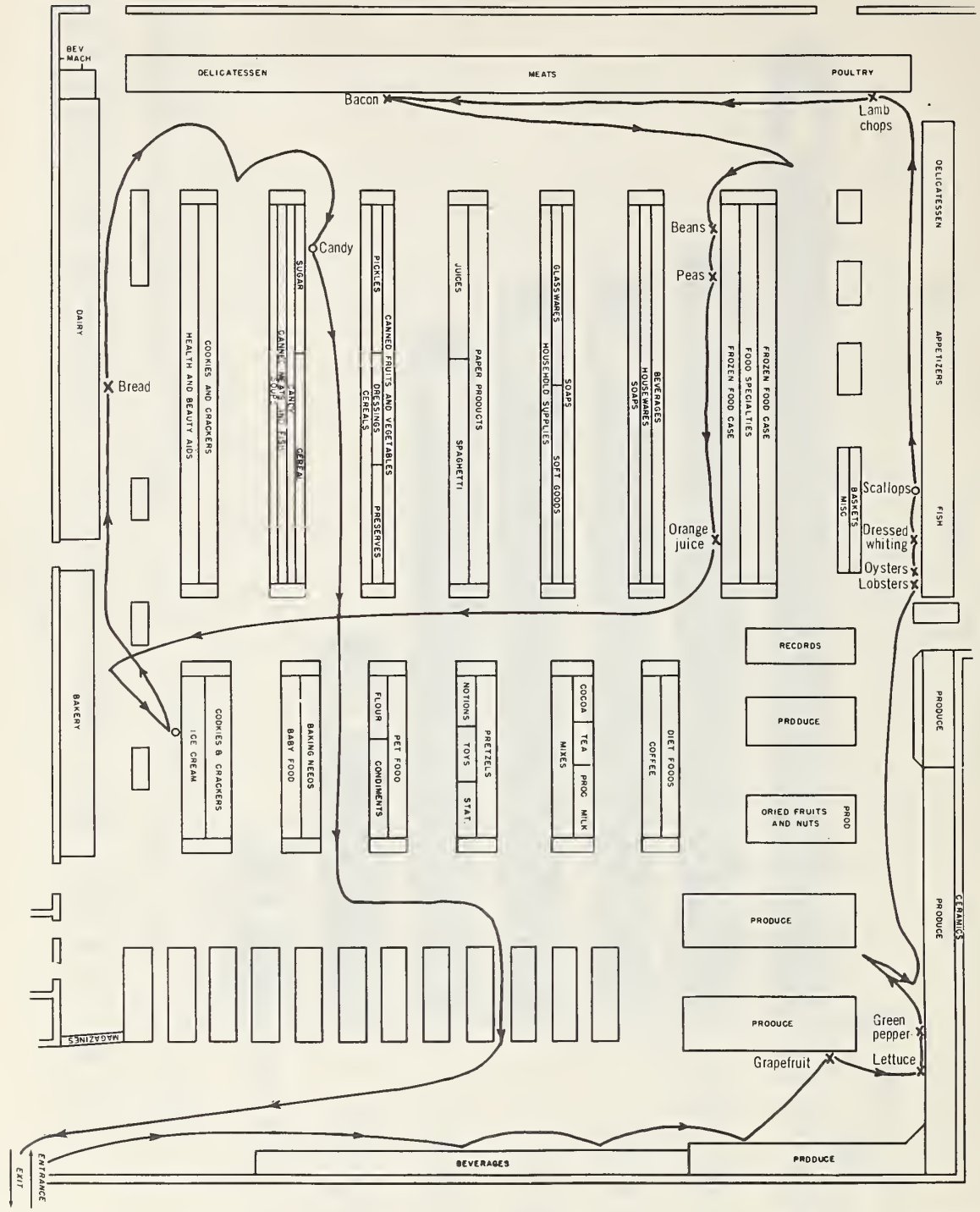
Figure 2

EXAMPLE OF DATA COLLECTED FOR EACH SHOPPER, RETAIL FOOD STORE TRAFFIC STUDY



1. Date: OCT. 29, 195
   Time in 4:00
   Time out 4:15
2. Age (approximately)
   ____ 18 and under
   ____ 18 - 30
   ✓ 30 - 50
   ____ 50 and over
3. Sex
   ____ Male
   ✓ Female
4. Use of Shopping List
   ____ Yes
   ✓ No
5. Amount of Purchase
   $ 8.14
6. Remarks:

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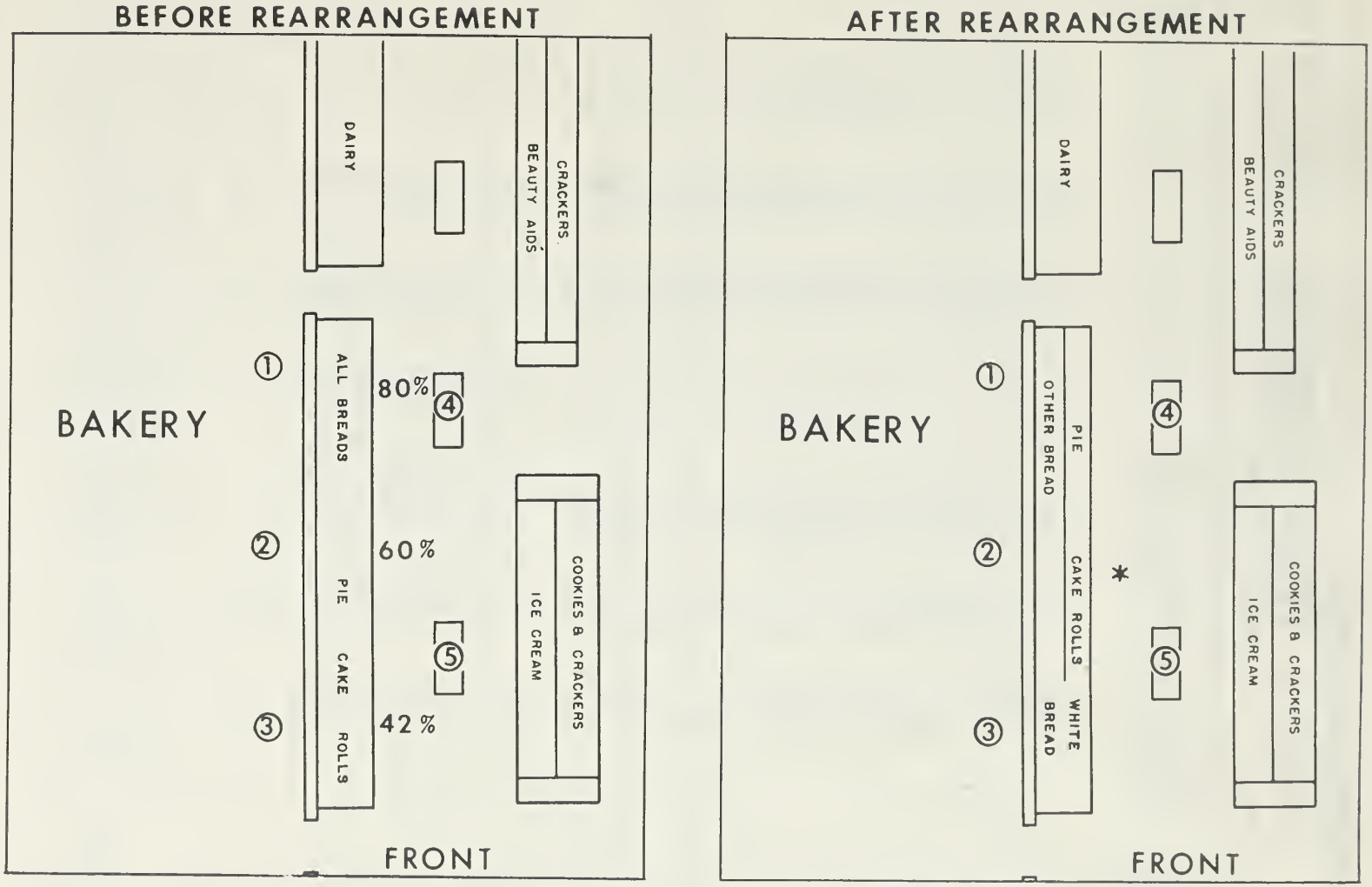
Figure 3

USE OF TRAFFIC PATTERN RESULTS TO INCREASE SALES

Store A, Boston, Mass., 1957



DISPLAY LOCATIONS IDENTIFIED BY NUMBERS IN CIRCLES; PERCENTAGES INDICATE PROPORTION OF CUSTOMERS WHO PASSED THAT PARTICULAR LOCATION *INCREASE IN SALES

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Figure 4

Before Rearrangement

TRAFFIC FLOW IN RETAIL FOOD STORE

Percentage of Total Shoppers Passing Selected Locations, Store A, Boston, Mass., 1957

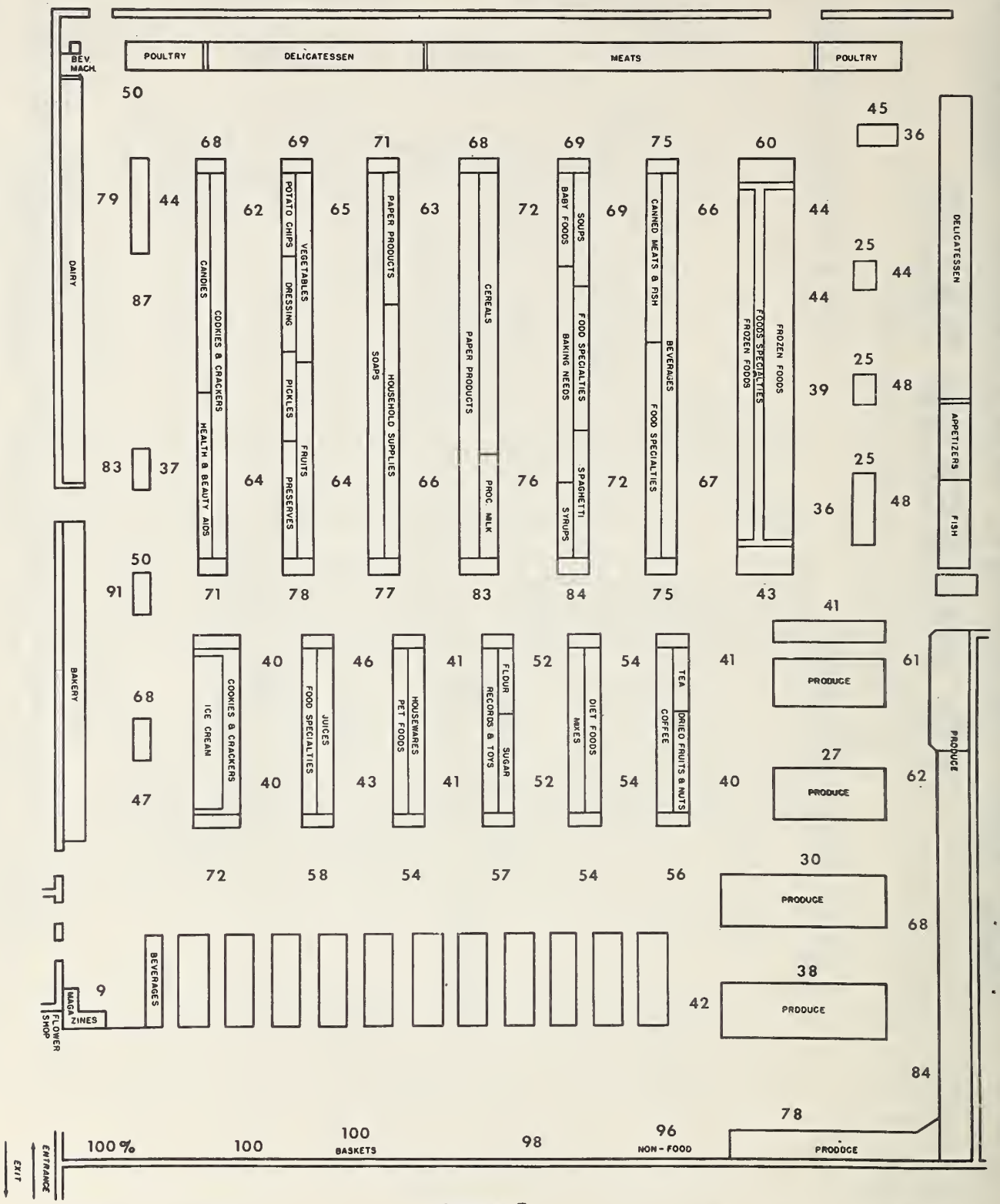

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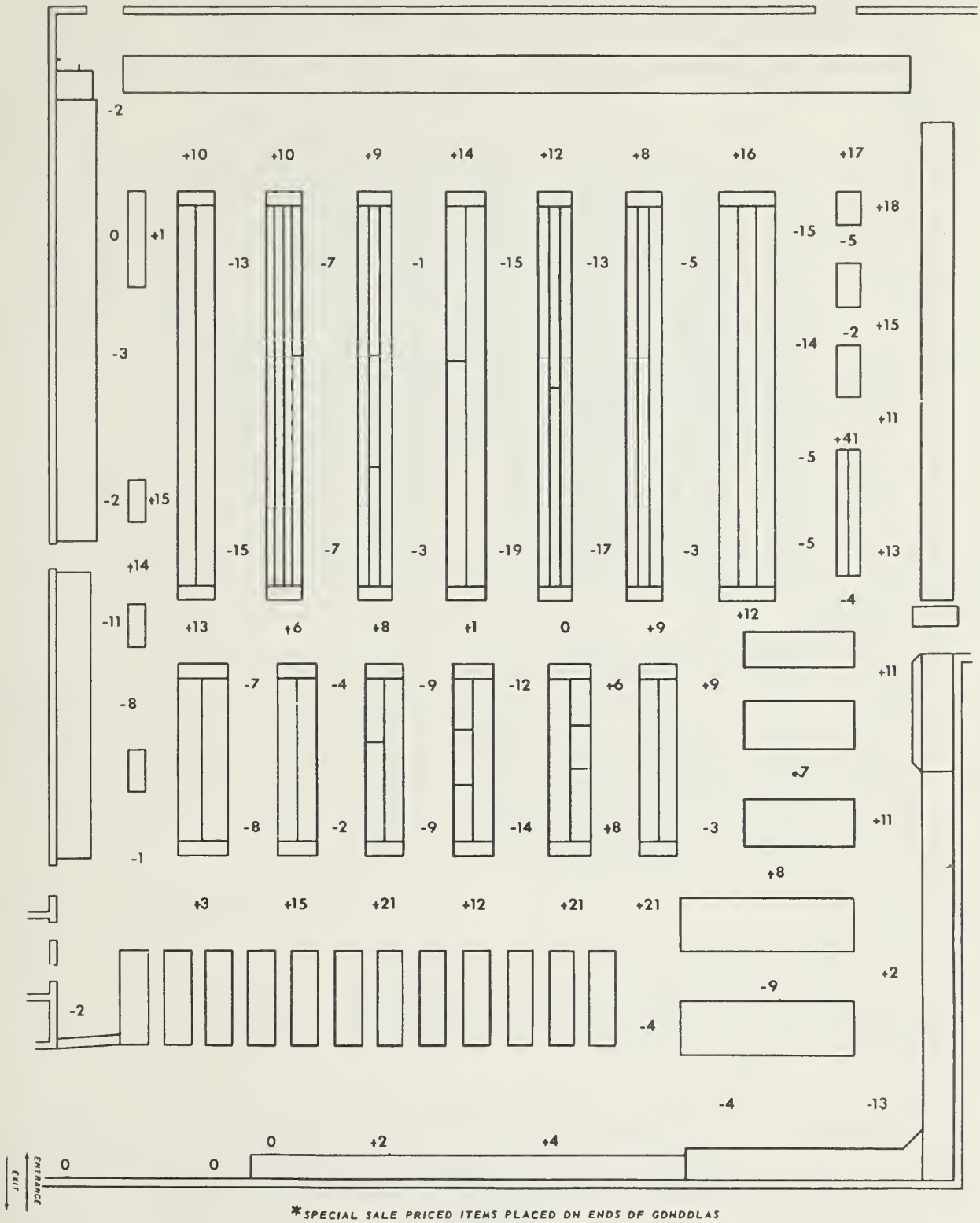
Figure 5

NEG. 6584-58 (10) AGRICULTURAL MARKETING SERVICE

CHANGE IN TRAFFIC FLOW DURING SPECIAL SALE*

Store A, Boston, Mass., 1957



*SPECIAL SALE PRICED ITEMS PLACED ON ENDS OF GONDOLAS

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Figure 6

NEG. 7566-59 (11) AGRICULTURAL MARKETING SERVICE

With Less Than Average Number of Purchases

PATH OF SHOPPER IN RETAIL FOOD STORE

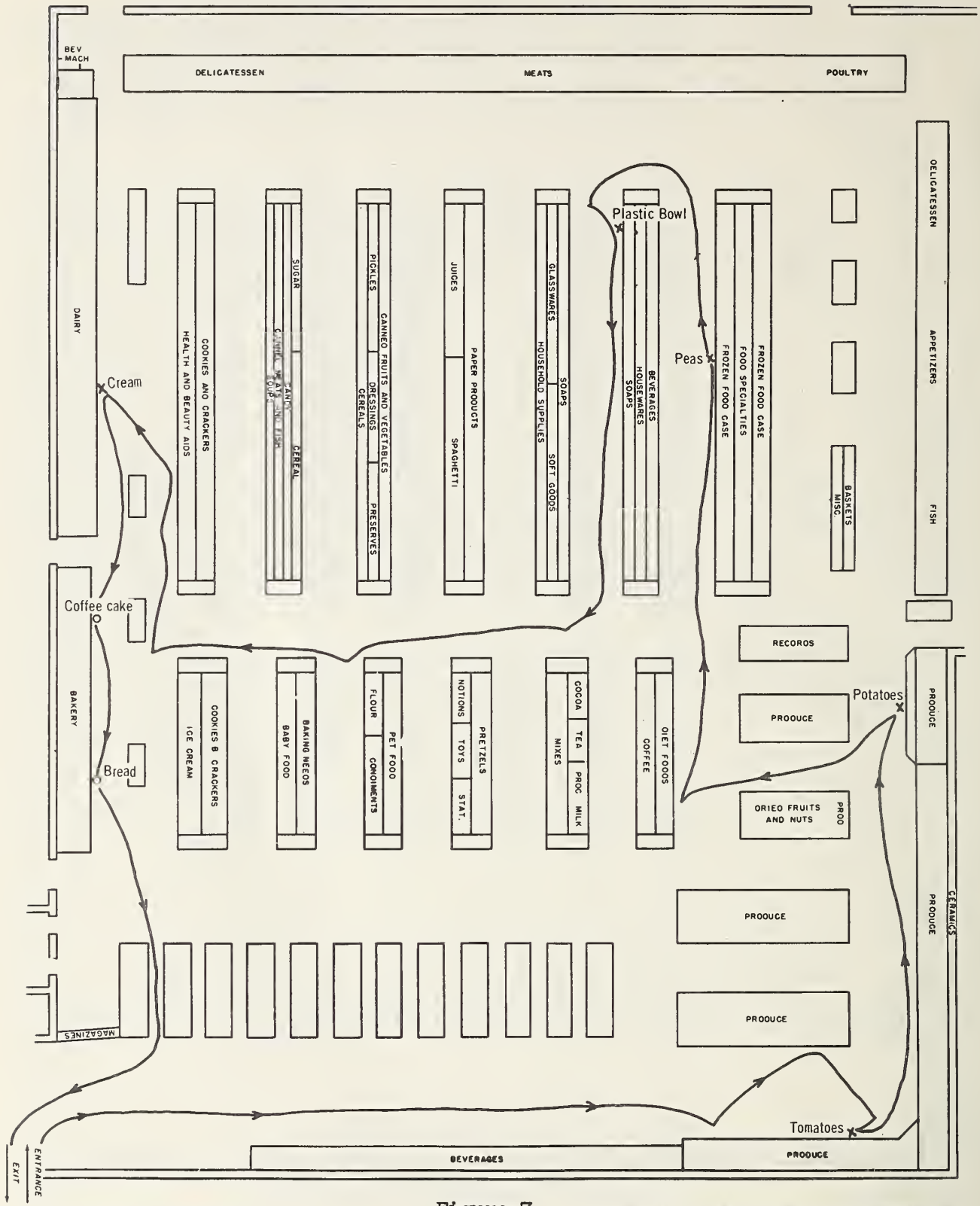

Figure 7

U. S. DEPARTMENT OF AGRICULTURE NEG. 6590-58 (10) AGRICULTURAL MARKETING SERVICE

TYPICAL PATH OF SHOPPER COVERING ENTIRE STORE

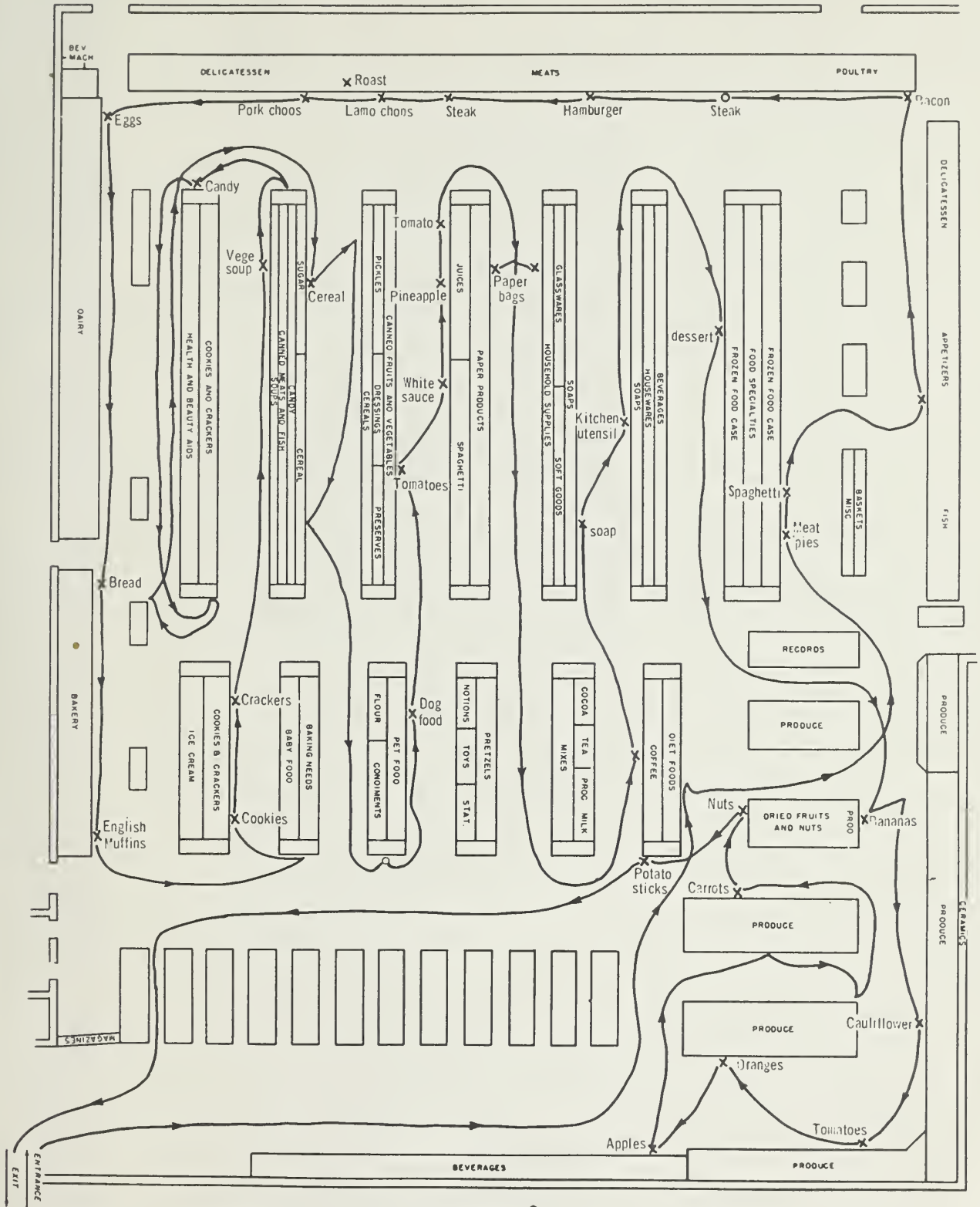

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Figure 8

NEG. 6583-58 (10) AGRICULTURAL MARKETING SERVICE