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MEATS and EGGS

Preferred
by
Alabama
Consumers



AGRICULTURAL EXPERIMENT STATION
AUBURN UNIVERSITY

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MEATS and EGGS Preferred by Alabama Consumers*

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FOR MANY FAMILIES food buying is the largest single expenditure of the family budget, with meat, poultry, fish, and eggs taking the greater portion of the food dollar.

Food expenditure is becoming increasingly important to agriculture in the South, to the marketing system, and to families. Marked shifts in the kind, quality, and uses made of food have occurred in many products in recent years. Policy decisions relating to food products have often been made without sufficient knowledge of why consumers buy what they do, or what actually causes changes in trends. For this reason it is necessary to supply more recent and accurate consumer-preference information to people engaged in production, processing, and marketing. An adequate understanding of consumer buying habits, preferences, family characteristics that affect kinds of meat purchased, and the effect of advertising in increasing sales is necessary if present marketing system is to provide southern families with meats they want.

In the first of four population groups under study in Alabama, all cities of 10,000 to 25,000 were included. Based on the 1950 census, the following cities were included: Alexander City, Andalusia, Auburn, Decatur, Fairfield, Homewood, Mountain Brook, Opelika, Sheffield, Sylacauga, and Talladega.

PURPOSE of STUDY

Recent research under Southern Regional Project SM-13 indicated that differences in income did not explain fully food

* This study was supported by funds provided by the Agricultural Research and Marketing Act of 1946 and by State Agricultural Research funds. It is the first part of Alabama's contribution to a regional food marketing research project, SM-13, in which nine southern states are cooperating: Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi, South Carolina, Tennessee, and Virginia.

selections and consumption among families. In the Southern Region, more emphasis has been placed on producing and marketing meats, poultry, fish, and eggs in recent years than on determining consumer preferences. Hence, there is need for current information on why consumers select specified foods. Also, such information would provide a basis for consumer education programs leading to better understanding of merchandising, advertising, and other demand-creating activities.

This bulletin is a report of the Alabama consumption study of specified meats and eggs purchased by families. It was designed to determine:

- (1) Factors involved in decision making.
- (2) Sources and types of information used by the consumer in making decisions.
- (3) Relationship of the decision-making process to purchase and use of selected foods.

FAMILY FOOD EXPENDITURES

Both white and Negro families ate a majority of their meals at home. White husbands averaged eating at home approximately 17 of the 21 meals per week and the homemaker ate about 19 of the 21. Negro husbands and wives averaged eating at home about 18 meals per week.

Since the majority of meals were eaten at home, quantity of meat purchased was affected very little by meals eaten away from home. It was assumed from data collected that the heavier meals with meat were served when the family was together.

Among white families per capita income affected food cost per person to the extent that those falling in the per capita income brackets below \$1,800 consumed more meals ranging in price from 10 to 39 cents per person per meal. With incomes \$1,800 and over, a greater percentage of people spent from 40 to 60 cents per person per meal.

A majority of the meals consumed by Negro families having an annual per capita income under \$2,400 cost 10 to 39 cents per meal. Few Negro families spent over 40 cents per person per meal, and only a few had per capita incomes of \$2,400 and over, Appendix Table 1.

Money spent for snacks varied little by race. Homemakers

of both races averaged spending approximately 80 cents per week, and families as a whole averaged approximately \$1.20 per week. This expenditure apparently had little effect upon meat purchases and consumption.

When extra money was available, 36 per cent of the white homemakers reported that the money was used to buy clothing; 21 per cent bought extra foods. Approximately 13 per cent purchased items for the home. The remaining 30 per cent used extra money for miscellaneous expenditures. Negro homemakers reported a different pattern for spending extra money. Almost 40 per cent used extra money for food, 32 per cent for clothing, 8 per cent for items for the home, 6 per cent to pay on bills, and 14 per cent on miscellaneous expenditures.

About 75 per cent of the extra money spent on food was used to buy meats, according to homemakers in both races.

CONSUMER PREFERENCE for MEATS

Meat Consumption

Meat was a popular food in most of the homes in the study. Many factors are recognized as influencing the specific meat purchase, such as knowledge of meat characteristics and cuts, meat cookery, time required for preparation, money available for meat, childhood and family food habits, and other influencing factors. The consumption pattern was not always found to be indicative of actual preference, and varied somewhat by race.

White families consumed more beef than any other kind of meat. About 36 per cent of the total meat consumed was beef, Table 1. Fresh and cured pork was second in consumption, 30 per cent; and fryers and fryer parts, third, 15 per cent. Wieners and variety meats made up 8 per cent of the total meat consumption, and fish about 7 per cent. Less than 1 per cent of lamb was consumed by white people in this population group; only 10 families reported using lamb.

Negro families reported a higher consumption of fresh and cured pork than of any other meat, 28 per cent. Beef was second, and fryers and fryer parts third. Although fryers ranked third in meat consumption, almost a third more was used by Negro than by white people. Nearly twice as much fish was reported used by Negro families as that reported by white families. Practically no lamb was reported consumed by Negro families in this population group, Table 2.

TABLE 1. TOTAL CONSUMPTION OF MEAT AND PROTEIN CONTENT FROM ANIMAL SOURCE, WHITE FAMILIES OVER A PERIOD OF 7 DAYS, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Meats	Consumption of meats	Av. consumption per family ¹	Av. consumption per person	Av. protein per person	Percentage of protein requirement ²
	<i>Per cent</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Grams</i> ³	<i>Per cent</i>
Beef.....	35.9	4.3	1.2	98.0	22.7
Pork.....	30.2	3.6	1.0	67.2	15.6
Lamb.....	.9	.1	.4	1.8	.4
Game.....	.3	.4	.4	.7	.2
Fish.....	7.2	.9	.3	20.5	4.7
Fryer and parts.....	15.4	1.8	.5	36.4	8.4
Hens and turkeys.....	2.1	.2	.1	4.4	1.0
Canned meats, cold cuts, wieners and variety meats.....	8.0	1.0	.3	19.6	4.5
TOTAL PER WEEK.....	100.0	11.9	3.4	248.6	57.5
TOTAL PER DAY.....		1.7	.5	35.5	57.5

¹ Based on total consumption of all families studied.

² Foods and Nutrition Board, National Research Council, Recommended Daily Dietary Allowances, Revised. 1958.

³ Calculations were made according to *Composition of Foods*, U.S. Dept. Agr., Agriculture Handbook No. 8. 1950.

⁴ Less than 0.05 pound.

TABLE 2. TOTAL CONSUMPTION OF MEAT AND PROTEIN FROM ANIMAL SOURCE BY NEGRO FAMILIES OVER A PERIOD OF 7 DAYS, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Meats	Consumption of meats	Av. consumption per family ¹	Av. consumption per person	Av. protein per person	Percentage of protein requirement ²
	<i>Per cent</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Grams</i> ³	<i>Per cent</i>
Beef.....	23.7	2.6	0.7	52.2	12.2
Pork.....	27.8	3.0	.8	50.2	11.7
Lamb.....	0	.4	.4	.4	0
Game.....	0	0	0	0	0
Fish.....	13.3	1.5	.4	30.3	7.0
Fryer and parts.....	22.6	2.5	.6	42.6	9.9
Hens and turkeys.....	2.3	.2	.1	3.8	.9
Canned meats, cold cuts, wieners and variety meats.....	10.3	1.1	.3	20.4	4.7
TOTAL PER WEEK.....	100.0	10.9	2.9	199.5	46.4
TOTAL PER DAY.....		1.6	.4	28.5	46.4

¹ Based on total consumption of all families studied.

² Food and Nutrition Board, National Research Council, Recommended Daily Dietary Allowances, Revised. 1958.

³ Calculations were made according to *Composition of Foods*, U.S. Dept. Agr., Agriculture Handbook No. 8. 1950.

⁴ Less than 0.05 pound or grams.

Preference for Beef Grades

Homemakers were shown color photographs of the rib-eye section of beef in three grades of meat, U.S. Choice, U.S. Good, and U.S. Standard.¹ Almost half of the white and Negro homemakers selected U.S. Good as the preferred grade. Negro homemakers indicated a slightly higher preference for U.S. Good than did white housewives, whereas the trend was reversed with U.S. Choice. Less than 20 per cent of the respondents in the two races chose U.S. Standard as the meat preferred by the family, Figure 1. Preferences were determined primarily by color and ratio of fat to lean meat, Table 4. It was apparent that few people understood grades or cuts of beef and qualities that are actually associated with each of the grades as now standardized by the industry and U.S. Department of Agriculture.

Preference for Pork

Pork products ran a close second in consumption to beef. The average family in this study consumed about 3.4 pounds of pork per week. The better trimmed pork chops were preferred by most homemakers, 78 per cent white and 65 per cent Negro, respectively. Twenty per cent of the white housewives reported preferring the medium fat pork chops, while among Negroes,

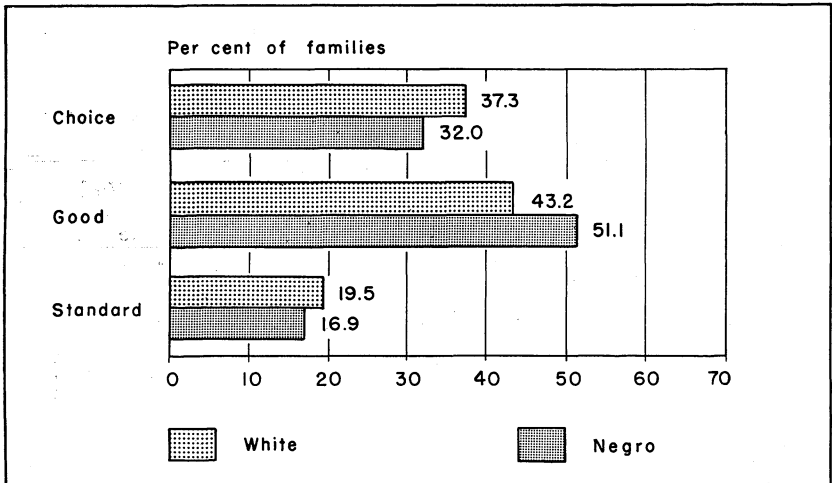


FIGURE 1. Beef grades (U.S.) preference of consumer by race.

¹Color photographs used were 8 × 10-inch official grade pictures obtained from the U.S. Dept. of Agr.

TABLE 4. QUALITIES FIRST LOOKED FOR BY HOMEMAKERS IN SELECTION OF BEEF AND PORK BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Qualities	Beef		Pork	
	White	Negro	White	Negro
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Grade.....	9.1	4.2	4.1	1.7
Cut.....	1.9	3.7	5.2	8.4
Marbling.....	12.9	3.2	0	0
Amount of fat.....	24.8	28.9	47.9	53.9
Color of lean.....	23.3	23.2	8.8	9.0
Fineness of grain.....	5.2	3.1	.5	1.1
Per cent of lean to bone.....	9.0	9.5	24.7	10.7
Price.....	.9	4.2	0	3.4
Other.....	12.9	20.0	8.8	11.8
TOTAL.....	100.0	100.0	100.0	100.0

30 per cent liked this type. Less than 6 per cent in either race indicated a preference for fat pork chops. However, Negro families on an average preferred and consumed more of the fat pork products than was found true of white families. When selecting pork chops in the market, the qualities looked for first by a majority of the homemakers, were ratio of fat to lean and per cent of lean meat to bone, Table 4.

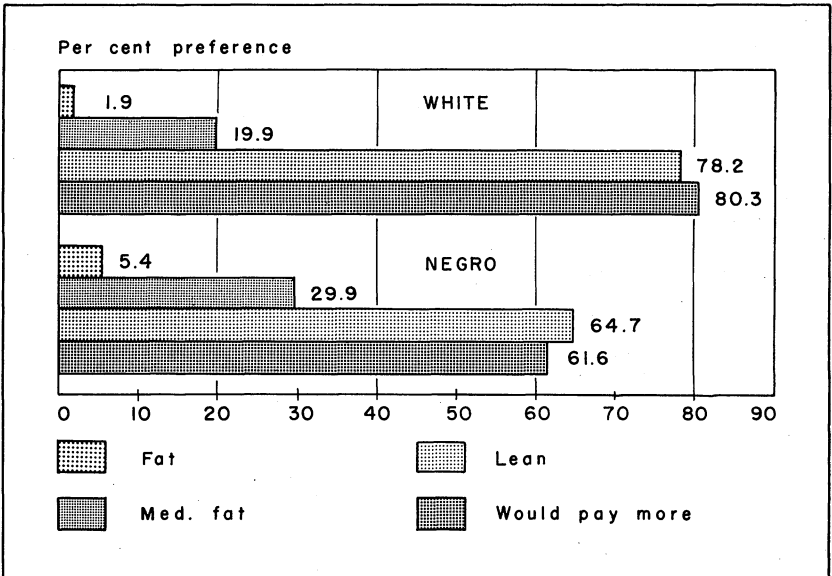


FIGURE 2. Consumers first preference by race as to amount of fat on pork chops and willingness to pay more for quality product.

Over 80 per cent of the white homemakers and 62 per cent of the Negro homemakers indicated a willingness to pay more for the product of their choice, Figure 2.

Income and Beef Grade Preference

A larger proportion of the high income families preferred U.S. Choice and U.S. Good to those of lower income, up to the level of \$8,000, Figure 3. Income level of families apparently influenced the beef grade selection by white families more than it did among Negro families. No important difference by income level could be found among Negro families, Appendix Table 4.

Education and Beef Grade Preference

Increased education, through the 12th grade, was found to influence consumer preference for U.S. Choice and U.S. Good when comparing data with lower grade levels, Figure 4. A higher proportion of white homemakers with some college training indicated a preference for U.S. Good over U.S. Choice. Among Negro families, homemakers with some college training seemingly preferred U.S. Choice. Data in this category, however, were limited, Appendix Table 5.

From the overall viewpoint of the consumer and the market, the preferred beef grade by both races was U.S. Good, Figure 1.

Meat Preference for Special Meals

Beef was preferred for special meals over any other kind of meat by 56 per cent of the white families studied. Twenty-eight per cent preferred chickens as a first choice, and only 11 per cent selected pork as the preferred meat for special occasions.

Beef and chicken selected by Negro families for special meals was the reverse of that preferred by white families. Chicken was preferred by 54 per cent of the families, whereas beef was first choice of only 30 per cent. Twelve and a half per cent selected pork as the choice meat for a special meal. Turkey, when selected for a special occasion, was chosen almost twice as often by white families as by Negro families.

Reason given for first choice by almost 75 per cent of the white families was that the meat selected was actually enjoyed the most. Sixty-three per cent of the Negro families selected meat on the basis of enjoyment, and 15 per cent selected according to price.

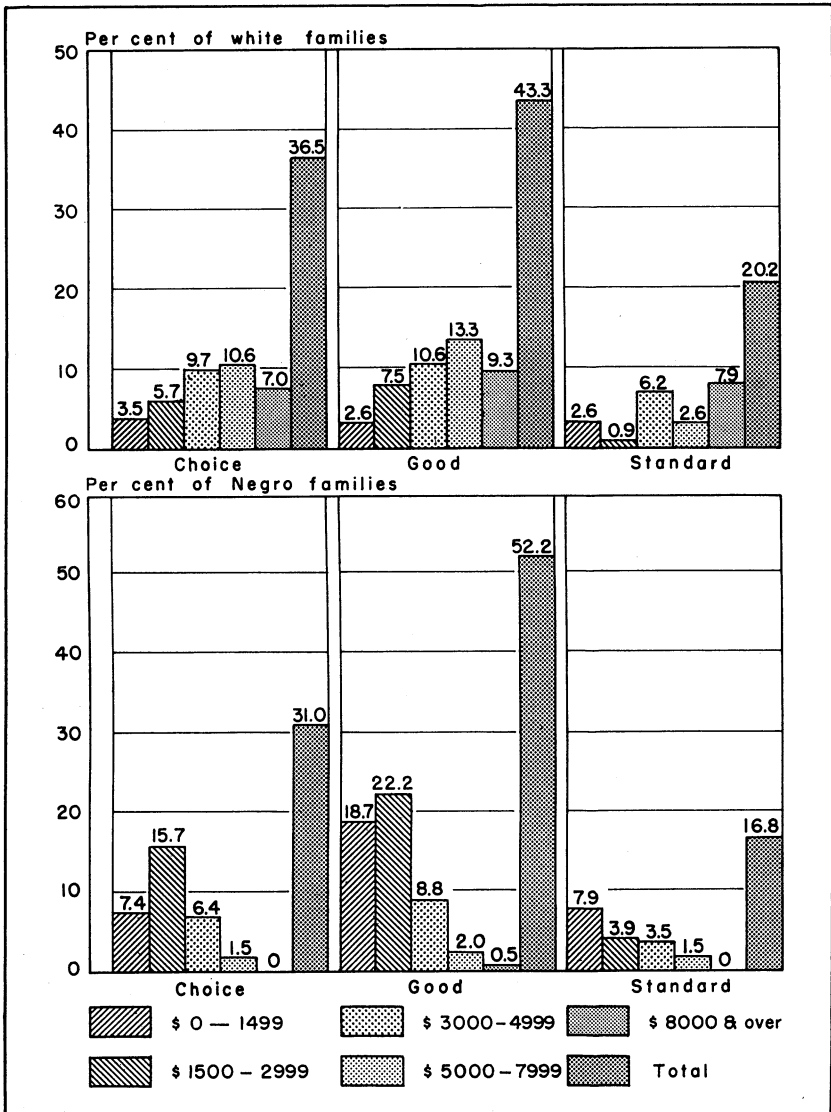


FIGURE 3. Relationship of beef grade (U.S.) preference to incomes of white families (above) and Negro families (below).

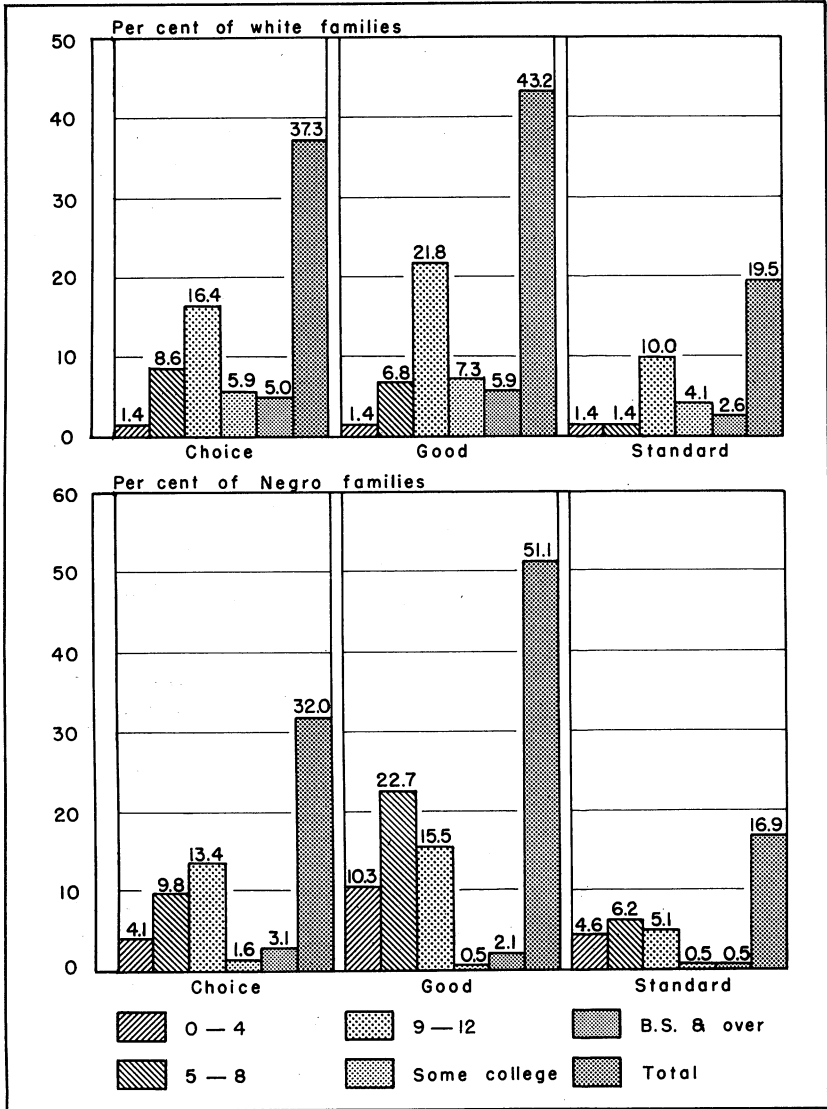


FIGURE 4. Relationship of beef grade (U.S.) preference to education of white families (above) and Negro families (below).

CONSUMER PREFERENCE for POULTRY PRODUCTS

Kind of Poultry Preferred

Chicken. Color photographs² of hens graded A, B, and C were shown homemakers and their preference asked. Size as desired by the family was found to be an important factor in selection of chicken, according to 1 out of 4 respondents. Meatiness, broad breast, and amount of fat were important factors to people of both races. Good color of bird and a high per cent of white meat were apparently of greater importance to the white homemaker.

Practically no consumers knew that hens were graded. This was largely because of the non-existence of a Federal law requiring compulsory inspection of dressing plants and poultry at the time of the study. Brand names were also found to mean very little to the consumer. Less than 1 per cent bought poultry by brand name, Table 5.

Turkey. The broad breast of turkey was the quality of greatest importance to almost 60 per cent of the homemakers in both races, Table 5. This white meat was apparently preferred over the dark meat. Size of turkey also is a consideration indicated by about 15 per cent of the respondents, many of whom reported that the small- to medium-sized turkey was much preferred over large birds, 18 pounds and over.

TABLE 5. QUALITIES IN SELECTION OF POULTRY FIRST LOOKED FOR BY HOME-MAKERS BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Qualities	Chicken		Turkey	
	White	Negro	White	Negro
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Brand name.....	0.5	0	0.8	0
Grade.....	.9	1.0	0	0
Size.....	23.5	27.0	11.4	20.5
Price.....	0	.5	0	0
Meatiness.....	16.7	13.7	9.2	4.8
Amount of fat.....	11.8	17.6	5.3	3.6
Broad breast.....	16.3	11.3	55.7	65.1
Good color.....	11.3	9.8	6.9	4.8
Other.....	19.0	19.1	10.7	1.2
TOTAL	100.0	100.0	100.0	100.0

² Color photographs used were 8 × 10-inch official grade pictures obtained from the U.S. Dept. of Agr.

Preferred Method of Preparing Chicken

Of the 436 homemakers interviewed, 69 per cent reported a family preference for fried chicken. Broiled chicken was preferred by approximately 12 per cent, baked chicken by 10 per cent, and barbecued by 6 per cent. There were no outstanding differences when analyzing data by race. The family preparation preferences, however, explain the large market demand for young chickens over mature birds.

The preferred method of preparing chicken was found to differ only slightly to the one most often used. Chicken was not baked or barbecued as frequently as the families first preference indicated, possibly because of the time element of preparation.

Consumption of Eggs

Total egg consumption by people in this study was adequate by recommended standards of 4 to 7 eggs per person per week. On a weekly per capita basis, white people were found to consume slightly over 7 eggs and Negro people 4.6 eggs, Table 6.

TABLE 6. CONSUMPTION OF EGGS AND PROTEIN FROM EGGS BY RACE OVER 7-DAY PERIOD, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Race	Eggs per family	Eggs per person	Protein per person per week	Percentage of protein requirement ¹
	<i>Number</i>	<i>Number</i>	<i>Grams</i>	<i>Per cent</i>
White.....	25.1	7.2	43.8	10.1
Negro.....	18.4	4.6	28.2	6.6

¹Food and Nutrition Board, National Research Council, Recommended Daily Dietary Allowances, Revised. 1958.

Preference for Graded Eggs

To arrive at consumer preference for quality of eggs, homemakers were asked for opinions concerning grading, Table 7. Almost twice as many white homemakers reported a preference for graded eggs as did Negro housewives. Fifty per cent of the Negro homemakers stated that it did not matter to them if eggs were graded. This statement was made by only 16 per cent of the white housewives.

Homemakers indicating a preference for graded eggs were asked for the grade selected when purchasing eggs, Table 7.

TABLE 7. CONSUMER PREFERENCE FOR GRADED EGGS BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Preference for grading			Preference for grade		
Preference	White	Negro	Grade	White	Negro
	<i>Per cent</i>	<i>Per cent</i>		<i>Per cent</i>	<i>Per cent</i>
Prefer graded eggs.....	80.2	43.7	AA ¹	25.1	5.6
Do not prefer graded eggs.....	3.5	5.8	A.....	60.8	49.7
Does not matter.....	16.3	50.5	B.....	.5	0
			No preference.....	13.6	44.7
TOTAL.....	100.0	100.0	TOTAL.....	100.0	100.0

¹ Only 5 per cent of the eggs sold in compliance with the Alabama Shell Egg Law are sold as grade AA. Because of this limited supply, it is assumed that at least part of the homemakers who indicated a preference for grade AA may have confused this with grade A.

Almost 86 per cent of the white homemakers bought grade A or AA eggs, and about half of the Negro people were found to use these grades.

Size Eggs Preferred

Large size eggs were preferred by almost 75 per cent of the white families interviewed and by slightly over half of the Negro families. Most of the remaining people interviewed indicated a preference for medium size eggs, with the exception of 16 per cent of the Negro homemakers who reported no preference for egg size.

Family Use of Eggs

Eggs were served regularly for breakfast by 81 per cent of the white families and by 58 per cent of the Negro families. Almost 47 per cent of the white families reported serving eggs frequently at the noon meal and 60 per cent served them at the evening meal. Among Negro families, 33 per cent frequently served eggs at noon and 44 per cent at night. Eggs are served as a main dish for the noon and evening meals as often as once or twice a week by 53 per cent of the white families and by 47 per cent of the Negro families studied. When eggs are served, almost half of the families reported using them in place of meat. These data point up the wide use made of eggs as a main part of a meal. Similar findings were reported in 1957 in a study made of rural areas and small towns in Alabama.³

³ *Consumption of Poultry Products: Factors Affecting Use of Eggs, Chicken, and Turkey in Alabama's Piedmont.* Auburn U. (API) Agr. Expt. Sta. Bul. 306. June 1957.

FACTORS INVOLVED in DECISION MAKING

To determine the effect of certain associations made by people with factors involved in decision making, pictures of two women, one overweight and one of accepted normal size, were shown the homemaker. The question was asked as to what meat she thought each would buy. Half of the white homemakers associated the buying of lean meat with the thinner person and 37 per cent listed beef as the meat she would purchase. Negro homemakers reported a similar opinion—30 per cent referred to lean meat as the meat selected by the thinner woman and 43 per cent thought beef to be the meat purchased.

Fat meats, pork, and fried meats were, on the other hand, associated with the overweight person by 75 per cent of the people studied in the two races.

The impression created by many market displays and pictures used in advertising has in part caused the homemaker to associate fat and well-marbled meats with expensive cuts. Rich, or fatty foods are in turn associated with overweight. Forty-eight markets where the interviewed people shopped were visited at the time of the study. Over 70 per cent were found to display fresh pork and ham mostly untrimmed. Beef cuts were generally found to be trimmed to some degree, yet a large amount of fat was left on grades U.S. Choice and Good. The amount of fat visible influenced the selection of meat purchased by the homemakers. The housewife who does not like fat meat or is conscious of the effects of high fat diets preferred well trimmed, lean meats. She also considered meat a better value when trimmed of fat even though the price per pound is higher.

Other factors involved in decision making were brought about by the large number of housewives working outside the home. Approximately 30 per cent of the white and 57 per cent of the Negro homemakers were employed. Many reported selecting cuts of meats that could be fried quickly, although not always the preferred cut or meat because of limited time for meal preparation. Beef, pork products, and fryers were as often used by the white and Negro employed homemaker as by the non-employed in both races, Table 8.

In the use of frozen pot pies and TV dinners, the white non-employed homemaker bought more than the employed. Among Negro homemakers, the employed purchased more pot pies and

TABLE 8. WEEKLY PER CAPITA CONSUMPTION OF MEAT AS RELATED TO EMPLOYMENT OF HOMEMAKER BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Meats	Employed		Non-employed	
	White	Negro	White	Negro
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Beef.....	1.2	0.7	1.3	0.6
Pork.....	1.1	.8	1.1	.8
Fryer and fryer parts.....	.6	.7	.5	.6
Hens and turkeys.....	.1	.2	.1	.1
Fish and seafood.....	.2	.4	.3	.4
Game.....	¹	¹	¹	¹
Lamb and mutton.....	1	1	1	1
Canned meats, cold cuts, wieners, variety meats.....	.3	.3	.2	.3
Prepared meat dishes	Percentage of families using			
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Frozen pot pies.....	45	21	55	17
Frozen TV dinners.....	13	15	28	4

¹ Less than 0.05 pound per week.

frozen TV dinners. It is possible that the employed housewife may not have had as much time as the unemployed person to try new food items available on the market.

Age of family members also had an effect upon cuts and kinds of meat purchased. Younger families bought more meats that could be fried or broiled with the exception of families with very small children. In the latter case, like older families they selected meats that could be tenderized for easier chewing.

Age of the homemaker in both races up to 59 years seemingly made little difference in meat consumption. Homemakers 60 years of age and over, however, reported consuming less beef, pork, and poultry than homemakers in any other age group. In all age brackets, white homemakers consumed more beef and pork than did Negro homemakers, Table 9.

TABLE 9. WEEKLY PER CAPITA CONSUMPTION OF MEAT AS RELATED TO AGE OF HOMEMAKER BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Meats	Age of white homemaker			Age of Negro homemaker		
	39 and under	40-59	60 and over	39 and under	40-59	60 and over
	<i>Pounds per capita per week</i>					
Beef.....	1.3	1.3	1.2	0.7	0.7	0.4
Pork.....	1.1	1.2	.7	.9	.8	.5
Fryer and fryer parts.....	.7	.7	.6	.8	.8	.5

In view of these findings, change of emphasis in advertising and marketing of meats merits further consideration, as it concerns race, age of families, number of homemakers employed, and their preference for kinds and cuts of meats.

Consumption of Meat as Affected by Rural and Urban Background

The home background of white homemakers was reported to be 31 per cent rural and 69 per cent urban. Thirty-nine per cent of the white male heads had a rural background and 61 per cent came from urban places. More Negro homemakers reported rural than urban background, 56 per cent as compared with 44 per cent. Negro male heads of homes were almost evenly divided between rural and urban backgrounds.

When analyzing data from the standpoint of rural and urban background and its effect upon meat consumption, white families coming from urban places were found to consume more beef, fish, and lamb, whereas families with a rural background consumed more pork and chicken, Table 10.

Negro families of urban origin consumed more beef, pork, and fish as compared with families of rural background who consumed more chicken.

TABLE 10. CONSUMPTION OF MEATS AND EGGS PER FAMILY OVER A 7-DAY PERIOD AS RELATED TO BACKGROUND OF HOMEMAKERS BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Meats	White homemaker background		Negro homemaker background	
	Rural	Urban	Rural	Urban
	<i>Pounds per family per week</i>			
Beef	3.5	4.6	2.3	3.0
Pork	3.8	3.6	3.0	3.1
Fryers.....	1.7	1.5	2.4	2.3
Fryer parts.....	.1	.3	.2	.2
Hens.....	.3	.2	.3	.2
Turkeys.....	0	0	0	¹
Fish.....	.9	1.1	1.3	1.7
Game.....	.1	0	0	0
Lamb.....	¹	.1	0	¹
Canned meat.....	.2	.2	.2	.2
Cold cuts.....	.4	.3	.4	.7
Wieners.....	.2	.4	.6	.6
Variety meat.....	.1	.1	0	.1
TOTAL.....	11.3	12.4	10.7	12.1
Number families.....	69	156	112	88
Number eggs.....	25.3	25.2	17.8	19.3

¹ Less than 0.05.

Effect of Childhood Eating Habits

In an attempt to determine effects of childhood food habits upon the eating pattern of adults, homemakers were asked about typical meat dishes included in meals served on week days when a child. Meats eaten mostly were pork 42 per cent, chicken 28 per cent, and beef 23 per cent, according to the white homemaker. Meats used more often by the Negro homemaker were pork 61 per cent, chicken 20 per cent and beef only 6 per cent.

Vegetables served with meats during childhood days varied somewhat by race. Potatoes and rice were served almost 3 times as often by white as by Negro homemakers. String beans were served over twice as often by white families and was apparently the favorite vegetable. Negro families served greens almost 5 times as often as did white homemakers, and apparently it was their favorite vegetable.

Breads associated with certain meats as a child again varied by race. Almost 82 per cent of the Negro families were accustomed to cornbread and 13 per cent to biscuits. Less than 4 per cent ate white loaf bread. White families reported a wider assortment of breads. Forty-four per cent had been accustomed to cornbread, 33 per cent biscuits, 11 per cent white loaf bread, and 8 per cent rolls.

The beverage most often served with the larger or main meal was milk, as reported by approximately four-fifths of all homemakers.

Over 96 per cent of the people interviewed in the two races continued to prefer the foods served them as children. This points up the fact that early food habits are deeply ingrained and are not readily changed.

New dishes containing beef were tried more often than were dishes containing any other meat; however, changes were few. Less than 1.4 per cent reported hearing of a new meat dish in the past 3 months. Only 2.3 per cent prepared a new meat dish more than once, and only 2 per cent tried a meat dish new to the family once during this time.

Where Budget Cuts Are Made in the Home

When monthly payments must be met, such as for a new refrigerator, the food budget is cut the most. Over 35 per cent of the homemakers in both races reported buying cheaper foods to help meet payments. It was found also that about 57 per cent

of the homemakers made this cut on meats. More Negro families cut expenses on clothing than was found true of white families. The reverse pattern was reported with recreational expenses, where white families cut on this expenditure more than Negro people. Possibly this is because white families customarily participate in more recreational activities.

Consumer Acceptance of Frozen Meats in the Market

Few consumers indicated an interest in buying meat in frozen form. Almost 70 per cent of the consumers reported they would not buy frozen meat, even if offered on the market. The remaining number would buy some meats frozen, but not all meats in this form regularly. Poultry and turkey were the meats housewives more often indicated an interest in purchasing in frozen form. Beef steaks followed next in preference. It may be assumed that many of the preferences reported were opinions rather than actual experiences with frozen meats and that at least part of the adverse opinions were based on resistance to change.

White homemakers reported almost a 2-to-1 acceptance of frozen meats as compared with that of Negro homemakers. This in part may be because of more white families owning home freezers or refrigerators with large freezer compartments in which to store meats. Among white families 15 per cent were found to have home freezers while only 2 per cent of the Negro families owned one. On the other hand, refrigerators that generally provide some storage space for frozen foods were found in all but 13 per cent of the homes. These were mostly among Negro households.

CONSUMER REACTIONS to ADVERTISING

Consumers are powerful in their effect upon production and marketing of food, since consumer demands must be satisfied. It is known, however, that many people can be persuaded to change buying practices. It is also recognized that consumers are influenced by forces coming from rapidly changing social and economic conditions. Through the various changes, certain types of advertising have been found to be more effective than others, and in some instances, it has varied with race, Table 11.

Eighty per cent of the white families and 53 per cent of the

TABLE 11. EFFECTIVENESS OF ADVERTISING AND CERTAIN OTHER FACTORS ON FOOD BUYING BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Item	Motivated to buy	
	White	Negro
	<i>Per cent</i>	<i>Per cent</i>
Advertising		
Ads in paper.....	28.8	25.1
Food section in newspaper.....	16.2	6.3
Food ads—radio.....	10.0	13.0
Cooking demonstration TV.....	2.6	2.9
Leaflets left at home.....	1.8	2.9
Store display.....	17.5	18.4
Samples tasted at store.....	19.6	17.9
Butcher at counter.....	26.6	7.3
Prepackaged meats.....	17.5	9.2
Other Factors		
Recipe books.....	30.1	12.1
Recipes on boxes or cans.....	15.7	16.4
School lunch menus.....	1.3	1.9
Information from friends.....	16.6	15.5
Cooking schools.....	1.3	0
Child's request.....	22.7	16.9
Food coupons.....	10.5	6.8
Food stamps.....	20.1	12.1
Food articles.....	20.1	7.7

Negro families interviewed subscribed to a daily newspaper. Forty-four per cent of white families and 14 per cent of the Negro families subscribed to a weekly paper. Food advertisements in newspapers were found to influence food purchases of 29 per cent of the white and 25 per cent of the Negro homemakers. However, the special food section was almost three times more effective with white people than with the Negro race, 16 per cent and 6 per cent, respectively. Store displays and food samples tasted in stores influenced almost 20 per cent of the people in both races to buy certain foods.

The butcher at the meat counter influenced almost 27 per cent of the white shoppers to buy at a particular store, because these consumers like help in their selection of meat. This was true of only 7 per cent of the Negro buyers, who possibly did not request advice from the butcher as frequently as did white people.

Cooking demonstrations on TV and leaflets left at homes apparently do not affect buying greatly. Less than 3 per cent were so influenced. Children's requests for certain foods were about

20 per cent effective and information passed on by friends was about 16 per cent effective in changing food buying practices.

Number and Type Stores Patronized

Over half of the families interviewed reported patronizing only one store for groceries. White families were found to shop in more food stores than did Negro families, Table 12.

Chain stores are widely used by all families. Almost 75 per cent of the white families and about 55 per cent of the Negro families interviewed reported buying at chain stores. Independent stores were patronized by a greater percentage of Negro families than by white families.

TABLE 12. NUMBER AND TYPES OF STORES PATRONIZED IN PAST 7 DAYS BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Race	Number of stores patronized				Type stores patronized	
	One	Two	Three	Over three	Chain	Independent
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
White.....	54.2	33.2	10.0	2.6	72.5	27.5
Negro.....	68.1	25.1	5.3	1.4	55.3	44.2

Reasons for Store Preference

Principle reasons given for store preference included cheaper foods, convenience of store, and availability of homemaker's choice for brands of food stocked by the store. Habit was the reason given by about 11 per cent of the families. More Negro than white families indicated that charge accounts were a determining factor in their choice of store, Table 13.

TABLE 13. REASONS FOR STORE PREFERENCE, BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Reason for preference	White	Negro
	<i>Per cent</i>	<i>Per cent</i>
Food cheaper.....	19.4	30.6
Better selection.....	4.0	6.8
Like brands.....	15.9	11.2
More convenient.....	26.0	21.8
Can charge.....	3.5	6.8
Habit.....	11.5	10.7
Fresher foods.....	3.1	4.8
Other reasons.....	16.6	7.3
TOTAL.....	100.0	100.0

Food stamps had an effect upon store selection. This was indicated by 20 per cent of the white and 12 per cent of the Negro homemakers.

Reaching the Consumer

The homemaker used varied sources of information when deciding what and where to purchase meat, poultry, and eggs. The food stores, however, apparently had the greatest influence upon consumer buying among both races through attractive food displays, posters, specials, and other means of promotion, Table 14. Advertisements in newspapers had the next greatest influence upon the homemaker in making food purchases, more so with white than with Negro people. Food sections in magazines were also found to be more widely read by white than by Negro homemakers.

TABLE 14. SOURCE OF INFORMATION CONCERNING PURCHASES OF MEAT, POULTRY, AND EGGS, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Source	White	Negro
	<i>Per cent</i>	<i>Per cent</i>
Newspapers.....	50.2	31.4
Food stores.....	58.1	66.7
Magazines with food section.....	20.8	8.3
Newspapers with food section.....	60.7	37.2

Knowledge and Use of TV Dinners

Almost 87 per cent of the white homemakers and 60 per cent of the Negro homemakers had heard of chicken TV dinners. Their source of information was principally stores, radio, and television. Only 35 per cent of the white families, however, reported having used TV dinners and only 19 per cent used them regularly. Among Negro homemakers 20 per cent reported having used TV dinners and 17 per cent used them regularly. Over 65 per cent of all homemakers using TV dinners saw no need to change the food combination of the dinners. Approximately 15 per cent wanted a change and suggested that peas be deleted or another vegetable substituted.

RELATION of INCOME, EDUCATION, and SOCIO-ECONOMIC STATUS to CONSUMPTION of MEATS and EGGS

To determine factors that might affect consumption of meat, poultry, and eggs, data were analyzed from the standpoint of

per capita consumption of each product in relation to income, education, and socio-economic status.

Income

Beef consumption, when related to increasing family income, was found to increase steadily from 0.6 to 1.4 pounds per person for white families during the week studied, Table 15. Negro families followed a similar beef consumption pattern. Families of both races with a per capita income of \$300 to \$1,800 bought less meat than did families with a per capita income of \$1,800 and over.

Negro families in the highest income group consumed considerably more pork than did white families. White families consumed more pork as annual income increased up to \$5,000. Beyond this point, pork consumption decreased.

The consumption of lamb was low, the small amount being used by families in the higher income levels. Only one Negro family reported the use of lamb. Apparently, income alone had little effect upon consumption of fish and variety meats by either race. Among white families income also had little effect upon the consumption of poultry. However, data from Negro families indicate an increase in consumption up to the \$5,000 income.

In general Negro families were also found to consume more

TABLE 15. RELATIONSHIP OF FAMILY INCOME TO CONSUMPTION OF MEATS AND EGGS, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Product	Income groups									
	\$000-1,499		\$1,500-2,999		\$3,000-4,999		\$5,000-7,999		\$8,000-over	
	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro
	<i>Pounds per capita per week</i>									
Beef.....	0.6	0.4	1.0	0.6	1.1	1.0	1.4	1.0	1.3	2.3
Pork.....	.7	.6	1.0	.8	1.1	1.1	1.0	.9	1.0	1.8
Lamb.....	0	0	0	0	0	0	¹ 0	0	.1	0
Fish.....	.1	.4	.3	.3	.3	.4	.3	.6	.3	0
Fryer & fryer parts.....	.5	.6	.4	.8	.6	.9	.5	.4	.6	.7
Hens.....	0	¹ .1	.1	.1	.1	.1	.1	0	.1	0
Turkey.....	0	0	0	0	0	¹ 0	0	0	0	0
Variety meats.....	¹ .1	.1	.1	.1	.1	.1	.1	.2	.1	.3
Wieners.....	.1	.1	.1	.1	.1	.2	.1	.2	.1	0
Canned meats.....	0	¹ .1	.1	.1	¹ .1	.1	.1	¹ .1	.1	0
	<i>Number of eggs per capita per week</i>									
Eggs.....	6.1	4.0	7.4	4.4	6.9	5.5	7.1	5.0	7.4	7.0

¹ Less than 0.05 pound.

eggs on a per capita basis as income increased. Among white families egg consumption followed a more stable consumption pattern in all income brackets.

Education

Upon comparing the relationship of meat and egg buying to education, it was found that beef consumption increased steadily with the average education of both husband and wife in both races. The one exception was the Negro families in the highest income brackets, data for which were thought to be inadequate, Table 16. Pork consumption increased among Negro families up to the 12th grade level. Lamb was consumed mainly by white families with a higher level of education. Fish consumption among white families increased with education, mainly because of greater use of certain seafoods such as shrimp. Negro families in the lowest grade level consumed almost twice as much fish as those in the higher educational levels. Many reported that fish were caught locally.

Consumption of fryers increased slightly with grade level among white families through B.S. degree and over, whereas consumption among Negro families increased steadily through the top three educational levels.

TABLE 16. RELATIONSHIP OF EDUCATION¹ TO CONSUMPTION OF MEATS AND EGGS, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Product	Educational levels									
	0-4 Grade		5-8 Grade		9-12 Grade		Some business or college		B.S. & over	
	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro
	<i>Pounds per capita per week</i>									
Beef.....	0.4	0.5	0.9	0.6	1.2	0.7	1.4	1.0	1.5	0.9
Pork.....	1.1	.7	1.0	.8	1.1	.9	1.0	.8	1.0	.7
Lamb.....	0	0	0	0	0	0	0	0	.1	0
Fish.....	.2	.5	.2	.3	.3	.4	.3	.3	.4	.2
Fryer & fryer parts.....	.4	.6	.5	.6	.5	.7	.5	.8	.6	.9
Hens.....	.2	.1	.2	.1	.2	.2	.1	0	.1	.1
Turkey.....	0	0	0	0	0	0	0	0	0	.1
Variety meats.....	.2	.1	.1	.1	.1	.2	.1	.2	.1	.1
Wieners.....	.2	.1	.1	.2	.1	.1	.1	.4	.1	.2
Canned meats.....	0	.1	.1	.2	.1	.2	.2	.2	.2	.2
	<i>Number of eggs per capita per week</i>									
Eggs.....	10.0	4.0	6.7	4.3	7.6	4.9	6.4	6.0	7.4	7.6

¹ Average educational level of husband and wife.

² Less than 0.05 pound.

The consumption of eggs among white families was again found to be fairly stable in most grade levels. However, among Negro families egg consumption increased steadily with education.

Socio-economic Status

Food expenditure and consumption patterns of people are known to be fairly stable within families at various levels of living. Income alone has not explained the variability in consumption habits. This indicated that current data needed to be supplemented with some other quantitative measures that might give a more complete understanding of factors affecting decision making and consumption habits of people. A socio-economic scale was developed for possible measure, Appendix A. Scores were ranked and divided into six classes, with a possible score of 24. All eligible families in the study were scored by this scale, which included the following: education; home ownership; home improvements; such material possessions as television, radio, refrigerator, home freezer, and automobile; home conveniences, such as telephone, power washer, hot and cold water; newspaper subscription; and participation in organizations. Families scoring 21 to 24 points composed the highest group; 16 to 20, second; 13 to 15, third; 9 to 12, fourth; 5 to 8, fifth; and 4 or less, sixth. The percentage of families in each of the six socio-economic classes varied with race, Appendix Table 6.

Relation of Socio-Economic Status, Per Capita Income, and Education to Consumption

Meats. Very little relationship was found between socio-economic status of families and the consumption of meat, Appendix Table 7. Data reveal that Negro families within the lowest and highest income groups consumed more meat as socio-economic score increased. No other socio-economic pattern of significance was found. All socio-economic groups in both races ate more meat as income increased. This indicates that when people have larger incomes meat purchases increase as well as material possessions that contribute to socio-economic status.

Within income groups the educational level of people in both races was found to affect consumption of meat, Appendix Table 8. Income is seemingly the more important controlling factor,

since meat consumption increased with income in each bracket among people of both races irrespective of educational level.

Eggs. Data show that egg consumption increased with socio-economic status among white families at annual incomes less than \$600 per person, Appendix Table 9. Above this income level, egg consumption was not affected by socio-economic status in either race, but was affected by income. While the average egg consumption was almost adequate in each socio-economic group in all income levels, according to the 4 to 7 eggs per week requirement, the upper income group of \$1,800 and over was found to consume more than the weekly requirement. There were no outstanding differences by race with two exceptions. Negro families in the lowest income bracket consumed fewer eggs than did white families in the same income group, whereas those in the \$1,200-1,799 group ate more eggs than did white families.

The educational level of both the white and Negro families interviewed had little effect on the consumption of eggs, Appendix Table 10. People of both races having a low per capita income consumed fewer eggs in all grade levels than did those in the higher income groups. As income increased, egg consumption increased in both races. Within the lower income group, Negro families consumed fewer eggs in all grade levels than did white families.

Family Possessions and Conveniences

Ownership of certain possessions and conveniences that enter into socio-economic status varied considerably by race. While almost all white families and 87 per cent of the Negro families owned a refrigerator, many conveniences were badly needed, especially by the Negro race, Appendix Table 11. At the time of this study 33 per cent of the Negro families continued to cook on wood or coal stoves; 23 per cent did not have running water, and 45 per cent did not have a water heater. Over half of the Negro families had some kind of a mechanical washing machine, almost 90 per cent owned radios, and 54 per cent had a television set. White families owned many more of the household conveniences than did Negro families, including such luxury items as television.

Meat consumption in both races increased with number of possessions and conveniences owned by the family.

PROTEIN from MEATS, POULTRY, and EGGS as RELATED to TOTAL REQUIREMENT

White families in Alabama cities with 10,000 to 25,000 population were consuming on an average the recommended requirements of protein per person, according to calculations by age and sex of family members. Percentage of requirement for white families was estimated to be 58 per cent from animal meats and over 10 per cent from eggs, totaling about 68 per cent from animal source alone, Table 17. Negro families were found to obtain 46 per cent of their protein requirement from meats and 7 per cent from eggs, totaling 53 per cent.

In analyzing the data from the standpoint of specific protein food groups and the contribution of each to the total animal protein intake, it was found that among white families approximately 48 per cent of the protein came from beef, pork, lamb, fish, game, and variety meats. Almost 10 per cent came from chicken and turkey, Table 18. These data show that white families in this population group exceeded their requirement of protein from meats and eggs, according to the 1958 recommended protein requirements by age and sex.⁴ This amount plus the estimated intake of protein from milk products, legumes, and grain would bring the total protein well over the daily requirement.

Among Negro families data show the meat groups to contribute about 36 per cent of the protein requirements and poultry 10.8. Negro families as a whole fell short of the recommended daily protein requirements. However, it is estimated that milk

TABLE 17. RECOMMENDED PROTEIN REQUIREMENT¹ OF FAMILIES COMPARED WITH PER CAPITA CONSUMPTION OF MEAT BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Race	Daily requirement	Meat intake	Percentage
	per person	per person	of requirement ²
	<i>Grams</i>	<i>Grams</i>	<i>Per cent</i>
White.....	61.7	35.5	57.5
Negro.....	61.4	28.5	46.4

¹ Calculated by age and sex, from Recommended Requirements as set up by the Food and Nutrition Board, National Research Council, Revised. 1958.

² Eggs not included.

⁴ Protein content of foods was calculated from *Composition of Foods*, U.S. Dept. of Agr., Handbook No. 8. 1950.

TABLE 18. PERCENTAGE OF PROTEIN REQUIREMENT¹ FROM MEAT, POULTRY, AND EGGS BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Race	Protein from meat ²	Protein from poultry ³	Protein from eggs	Total protein from animal source
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
White.....	48.1	9.5	10.1	67.7
Negro.....	35.6	10.8	6.6	53.0

¹ Protein content of foods calculated from *Composition of Foods*, U.S. Dept. Agr., Handbook No. 8. 1950.

² Meats include beef, pork, lamb, fish, game, and variety meats.

³ Poultry includes all chicken and turkey.

and milk products and high cereal intake they are known to consume would make up the difference for at least the minimum protein adequacy for even the lower income group.

Knowledge of Meat Consumption Requirements

A question was included in the study to determine homemaker's level of knowledge concerning amount of meat needed by the family. Eighty per cent of the white homemakers reported that the families' present consumption was adequate; 14.6 per cent felt it should be increased, and about 5 per cent believed that the family ate too much meat. The Negro homemaker's opinion concerning the family's adequacy of meat differed somewhat. Less than half of the homemakers reported that the family consumed enough meat. Forty-eight per cent believed the meat supply should be increased, and only 4 per cent indicated that the family could decrease consumption of meat. Reasons most often given by the Negro homemaker for having too little meat was high cost.

Knowledge concerning meat consumption requirements as reported indicated a fairly good understanding of protein needs. With few exceptions homemakers who reported a need for increased meat consumption were those who had an inadequate amount.

MEAT, POULTRY, and EGG CONSUMPTION COMPARED to 1958 NATIONAL AVERAGE

Beef consumption of about 78 pounds per person per year by white Alabama families studied is estimated to be very near the 1958 national average of 80.5 pounds. Surveyed Negro families in Alabama were found to consume about 52 pounds of beef per

person, which is considerably below average. Annual consumption for this study was calculated from amounts of meats used by families over a 7-day period prior to the interview. Although not as accurate as data averaged from each of the 4 seasons, it is indicative of approximate meat consumption. Very little veal and lamb, however, were used in the population group under study. Contrary to general belief, pork consumption was lower than the national average in these Alabama cities. Furthermore, pork consumption was found to be higher among white families than Negro, on a per capita basis, Table 19. The national figures for pork consumption in 1958 included lard as a separate item, whereas Alabama's study did not specifically separate lard from fat side meat. This may, in part, explain the lower pork consumption when compared to the national average. Yet, from

TABLE 19. PER CAPITA CONSUMPTION OF MEAT AND EGGS BY RACE AS COMPARED WITH NATIONAL AVERAGE AND FORECAST¹, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Commodity	Per capita annual consumption			National ⁴ 1958	National 1959
	White ²	Negro ²	White ³ and Negro	average	forecast
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Beef ⁵	78.0	52.0	70.5	80.5	79.0
Veal.....	.0	.0	.0	6.8	6.8
Lamb and mutton.....	1.6	.6	1.1	4.1	4.2
Pork ⁷	52.0	42.0	49.1	60.6	66.0
TOTAL RED MEAT.....	131.6	94.0	120.7	152.0	156.0
Poultry.....	31.2	36.4	33.0	34.1	34.0
TOTAL POULTRY AND RED MEAT.....	162.8	130.4	153.7	186.1	190.0
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Eggs per week.....	7.2	4.6	6.4	6.7	Slight increase
Egg-annual consumption.....	374.4	240.0	335.4	348.0	350.0

¹ *The Livestock and Meat Situation* (Bimonthly Agr. Mktg. Ser. USDA), 1959 Outlook Issue. November, 1958.

² Annual consumption was calculated from amounts of meats used by families over a 7-day period prior to interview. Data were collected during fall and winter months.

³ Combined average based on ratio of white to Negro in survey sample (71 per cent white, 29 per cent Negro).

⁴ *The Poultry and Egg Situation* (Bimonthly Agr. Mktg. Ser. USDA), 1959 Outlook Issue. November, 1958.

⁵ Beef included veal and variety meats made from beef.

⁶ Less than 0.05 pound.

⁷ National consumption average for pork included lard. Alabama study included pork products exclusive of lard.

all estimates of lard usage in the Alabama cities studied, pork consumption remains lower than the national level.

Poultry consumption for the combined races is almost equal to that of national average. By race, Negro families consumed almost 1.5 pounds per capita more than the national average of 34 pounds, and white families about 3 pounds less than the 1958 average.

In the consumption of eggs, the trend between the two races studied again differed. White people consumed 374.4 eggs per person per year, which is well over the national average of 348. Negro families, however, averaged consuming only 240 eggs on a per capita basis. The number of eggs consumed by Negro people, although lower than national average, meets the minimum nutrition standards for per capita consumption.

SUMMARY

This report is of a study designed to provide people in production, marketing, consumer education, and nutrition with specific information regarding consumer selection of specified meats and eggs and factors affecting selections. The study was made in 1958 in 11 Alabama cities with 10,000 to 25,000 population.

When the family had extra money, 21 per cent of the white and 40 per cent of the Negro families spent it on food.

When monthly payments had to be met, the food budget was cut the most. Fifty-seven per cent of all homemakers made this reduction on meats.

White families interviewed consumed more beef than any other kind of meat, 36 per cent of their total meat consumption. Pork followed second with 30 per cent, and fryers third with 15 per cent. Negro families surveyed consumed more pork than any other kind of meat, 28 per cent, beef 24 per cent, and fryers 23 per cent.

Negro families consumed a third more fryers than did white families, and almost twice as much fish.

First choice of meats among white families was beef and among Negro families, poultry.

Almost 90 per cent of the people studied preferred beef 1 year and older to baby beef or veal.

Almost half of the white and Negro homemakers selected U.S. Good as the preferred beef grade.

Fat meats were not wanted by the majority of homemakers.

Trimmed pork chops were preferred by most of the homemakers, 78 per cent white and 65 per cent Negro.

Most homemakers would pay more for the product of their choice, 80 per cent white and 62 per cent Negro.

A larger proportion of high income families preferred U.S. Choice and U.S. Good as compared with those of lower income, up to the level of \$8,000.

Increased education was found to influence consumer preference for U.S. Choice and U.S. Good through the 12th grade. With some college training, more white homemakers reported a preference for U.S. Good than for U.S. Choice.

People of both races preferred hens with broad breast, good color, and low fat.

Turkey with broad breast was the quality of greatest importance to almost 60 per cent of the homemakers of both races. White meat was apparently preferred over dark meat.

On a per capita basis, white people were found to consume slightly over 7 eggs per person per week and Negro people about 4.6 eggs.

Almost twice as many white homemakers as Negro housewives reported a preference for graded eggs. Of those preferring graded eggs, 86 per cent of the white and 55 per cent of the Negro homemakers bought grade A or AA eggs. Large size eggs were preferred by 75 per cent of the white and slightly over half of the Negro homemakers.

Beef consumption when related to family income was found to increase steadily from 0.6 to 1.3 pounds per person for white families. Negro families followed a similar beef consumption pattern.

In general, beef consumption increased steadily with the average education of husband and wife in both races.

Employment of homemaker had little effect on meat consumption when compared to the non-employed. Employment did affect preparation somewhat, since the homemakers selected more meat cuts that could be prepared in limited time.

Background of consumers affected consumption. White families of urban origin consumed more beef, fish, and lamb, whereas families of rural origin consumed more pork and chicken. Negro families from urban places consumed more beef, pork, and fish as compared with families with rural background.

Over 96 per cent of the people of the two races interviewed preferred foods served them as children. This points up the fact that early food habits are deeply ingrained and affect buying practices.

Age of the homemaker affects meat purchases to the extent that younger families buy more meat that can be fried or broiled. Homemakers over 60 years of age buy less beef, pork, and poultry than do those under 60 years.

Food advertisements in newspapers influenced food purchases of 29 per cent of the white homemakers, and 25 per cent of the Negro homemakers.

The special food section in newspapers was almost three times more effective among white than Negro people.

Butcher service influenced 27 per cent of the white shoppers to buy in a particular store. Only 7 per cent of the Negro shoppers were so influenced.

Chain stores were widely used by all families, 75 per cent by white and 55 per cent by Negro shoppers.

Principle reasons for store preference were cheaper foods, convenience of store, and availability of brands preferred by the homemaker.

Few consumers indicated an interest in buying meats in the frozen form. Acceptance was 2 to 1 greater among white than Negro families.

Consumers were found not to be familiar with grading as it applied to meats, poultry, and eggs. Meat cuts and good values were also not well understood. More educational and promotional programs are necessary to better inform consumers.

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APPENDIX A

Method of Study

The study and sampling were designed to obtain data from approximately the same number of white and Negro families for comparative analysis by race.

Data were obtained from families with two or more members who had at least one meal per day at home. Schedules were collected by trained interviewers who were urged to establish interest and pleasant relationship with the interviewee. A total of 436 family schedules were used in the study, representing 229 white and 207 Negro families. White families had an average of 3.49 members per family, whereas the Negro families averaged 3.97 members. Information collected includes a total number of 800 white and 821 Negro people.

Family Description

Income. Average net income of families covered by this study varied considerably for white and Negro people. White families had an average income of \$5,920 per year, or a per capita income of \$1,877. Negro families earned annually \$2,352, or a per capita average of \$780. The average family income for white and Negro in this study was \$4,886 per year, Appendix Table 12. Income was defined as the total sum of net receipts from farm operations, wages, salaries, and other sources.

Education. The average educational level of white husbands and wives in this study was 11.6 grades. Negro husbands and wives averaged 7.8 grades completed. There were no significant differences between husband and wife in either race when comparing educational levels through the 9th grade. More wives in both races completed high school than was true of the husbands from families interviewed. Four per cent of the Negro husbands reported no education, while this was true of only 1 per cent of the Negro wives, Appendix Table 13.

Home ownership. Home ownership was reported by 66 per cent of the white families and 50 per cent of the Negro families. Home improvements had been made within the past 5 years by 62 per cent of the white families and 39 per cent of the Negro families. The high percentage of families having made recent home improvements indicated a freer use of income for general improvement of living.

Employment of homemaker or wife. Approximately 30 per cent of the white homemakers and 57 per cent of the Negro homemakers were gainfully employed the week prior to this survey. Of these, about 60 per cent of the white homemakers were employed in some type of skilled or professional work, while only 11 per cent of the Negro homemakers were so engaged. There is indication in this study that the large number of homemakers working outside of the home affects the selection of foods.

Employment of head or husband. Almost 70 per cent of the white men in this study, who were heads of homes, were self employed or held positions requiring skill of some type. This was true of only 19 per cent of Negro male heads. Over 70 per cent of the Negroes reported employment in unskilled work. White families had on an average 1.3 earners per family, while Negro families reported having 1.5 earners.

ITEMS COMPRISING SOCIO-ECONOMIC SCORE

Item	Answer	Score
1. Freezer	Home freezer	2
	Freezer locker	1
	No	0
2. Hot and cold water	Yes	2
	Water piped in	1
	No	0
3. Power washing machine	Yes	2
	No	0
4. Telephone	Yes	1
	No	0
5. Radio	Yes	1
	No	0
6. Television	Yes	2
	No	0
7. Newspapers	Daily	2
	Weekly	1
	No	0
8. Autos and/or truck (one model 1955 or later)	Two	2
	One or two	1
	No	0
9. Own home	Yes	1
	No	0
10. Home improvements in past 5 yr. (If house was built in last 5 yr. give 2 pt.)	Yes	2
	No	0
11. Education of either head or prin- cipal earner	College grad.	3
	High school grad.	2
	Some schooling	1
	No	0
12. Participation of family members in organizations	All members 6 yr. and over in 1 or more organizations other than church	2
	Part members 6 yr. and over in 1 or more organizations other than church	1
	All or part in church organizations or in no organization	0
13. Homemakers regular reading news- papers and/or magazines	3 or more	2
	1 or 2	1
	None	0
TOTAL		24

APPENDIX B

APPENDIX TABLE 1. FOOD COST PER PERSON AS RELATED TO INCOME CLASS PER PERSON BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Cost per person per meal	Income class								
	Below \$300	\$300 -599	\$600 -1,199	\$1,200 -1,799	\$1,800 -2,399	\$2,400 -2,900	\$3,000 -3,900	\$4,000 -4,900	\$5,000 & over
<i>Percentage of people</i>									
White									
Less than \$0.10.....	0	0	0	0	0	0	0	0	0
\$0.10-0.19.....	0	19	14	13	0	10	0	0	0
.20- .29.....	100	50	32	30	13	20	0	13	0
.30- .39.....	0	19	32	30	31	10	11	13	0
.40- .49.....	0	12	16	21	25	10	22	13	11
.50- .59.....	0	0	2	2	18	20	22	0	0
.60 & over.....	0	0	4	4	13	30	45	61	89
TOTAL.....	100	100	100	100	100	100	100	100	100
Negro									
Less than \$0.10.....	32	11	2	0	0	0	0	0	0
\$0.10-0.19.....	54	49	18	12	17	0	0	0	0
.20- .29.....	7	32	45	24	17	0	0	0	0
.30- .39.....	5	6	19	28	33	0	0	100	0
.40- .49.....	0	0	9	20	0	0	100	0	0
.50- .59.....	2	2	3	12	33	0	0	0	0
.60 & over.....	0	0	4	4	0	0	0	0	0
TOTAL.....	100	100	100	100	100	0	100	100	0

APPENDIX TABLE 2. FAMILY LIKES AND DISLIKES CONCERNING MEAT, POULTRY, AND EGGS BY RACE¹, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Preferences	Likes		Dislikes	
	White	Negro	White	Negro
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
Beef.....	42.9	27.5	12.3	25.9
Pork.....	10.4	20.0	14.8	19.0
Poultry.....	14.3	37.5	14.8	19.0
Lamb.....	1.3	0	16.1	15.5
All meats.....	22.0	15.0	2.5	3.4
Sea foods.....	5.2	0	9.9	6.9
Variety meats.....	0	0	13.6	5.1
Wieners—cold cuts.....	0	0	0	0
Eggs.....	3.9	0	16.0	5.2
TOTAL.....	100.0	100.0	100.0	100.0
No strong opinion.....	64.4	80.7	64.6	72.0

¹ Percentages include only families indicating strong likes and dislikes of specified foods.

APPENDIX TABLE 3. FAMILY PREFERENCE FOR BEEF ACCORDING TO AGE OF ANIMAL BY RACE¹, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Preference	One year or older		Baby beef or calf		Veal	
	White	Negro	White	Negro	White	Negro
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
First preference ²	90.2	85.9	12.1	9.9	5.3	8.8
Second preference.....	4.2	7.3	23.5	15.6	24.3	19.1
Third preference.....	2.3	2.8	6.0	5.7	13.8	8.8
Do not buy.....	3.3	4.0	58.4	68.8	56.6	63.3
TOTAL.....	100.0	100.0	100.0	100.0	100.0	100.0
No preference.....	6.5	14.5	34.9	31.9	33.6	29.0

¹ Percentage includes only those families expressing preferences or did not buy.

² Equal preference for certain cuts from heavy beef and baby beef were indicated by a number of homemakers.

APPENDIX TABLE 4. RELATIONSHIP OF BEEF GRADE¹ PREFERENCE TO FAMILY INCOME BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Income	White			Negro		
	Choice	Good	Standard	Choice	Good	Standard
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
0-1,499.....	3.5	2.6	2.6	7.4	18.7	7.9
1,500-2,999.....	5.7	7.5	0.9	15.7	22.2	3.9
3,000-4,999.....	9.7	10.6	6.2	6.4	8.8	3.5
5,000-7,999.....	10.6	13.3	2.6	1.5	2.0	1.5
8,000 & over.....	7.0	9.3	7.9	0	0.5	0
TOTAL.....	36.5	43.3	20.2	31.0	52.2	16.8

¹ Color pictures of the three U.S. grades, Choice, Good, and Standard were shown the homemakers.

APPENDIX TABLE 5. RELATIONSHIP OF BEEF GRADE¹ PREFERENCE TO EDUCATION OF HOMEMAKER BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Education	White			Negro		
	Choice	Good	Standard	Choice	Good	Standard
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
0-4 grades.....	1.4	1.4	1.4	4.1	10.3	4.6
5-8 grades.....	8.6	6.8	1.4	9.8	22.7	6.2
9-12 grades.....	16.4	21.8	10.0	13.4	15.5	5.1
Some college.....	5.9	7.3	4.1	1.6	.5	.5
B.S. and over.....	5.0	5.9	2.6	3.1	2.1	.5
TOTAL.....	37.3	43.2	19.5	32.0	51.1	16.9

¹ Color pictures of the three U.S. grades, Choice, Good, and Standard were shown the homemakers.

APPENDIX TABLE 6. PERCENTAGES OF FAMILIES IN VARIOUS SOCIO-ECONOMIC CLASSES BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Socio-economic classes	White families	Negro families
	<i>Per cent</i>	<i>Per cent</i>
21-24.....	12.7	0.5
16-20.....	46.3	20.3
13-15.....	21.0	17.4
9-12.....	13.5	20.8
5-8.....	6.1	21.7
0-4.....	.4	19.3
TOTAL.....	100.0	100.0

APPENDIX TABLE 7. MEAT¹ CONSUMPTION PER PERSON AS RELATED TO SOCIO-ECONOMIC STATUS AND PER CAPITA INCOME BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Socio-economic score	Per capita income			
	\$000-599	\$600-1,199	\$1,200-1,799	\$1,800 & over
	Av. consumption per wk. per person ²	Av. consumption per wk. per person ²	Av. consumption per wk. per person ²	Av. consumption per wk. per person ²
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
White				
0-4.....	0	3.0	0	0
5-8.....	2.0	1.5	4.3	2.6
9-12.....	1.7	3.1	2.1	4.8
13-15.....	3.2	2.7	3.1	4.3
16-20.....	0	3.0	3.5	4.0
21-24.....	0	3.8	3.4	4.6
AVERAGE.....	2.7	2.8	3.4	4.2
Negro				
0-4.....	2.0	2.6	2.9	0
5-8.....	2.3	3.3	5.3	0
9-12.....	2.3	3.6	5.4	0
13-15.....	2.3	3.1	4.8	3.8
16-20.....	2.7	2.9	4.6	4.9
21-24.....	0	0	0	7.6
AVERAGE.....	2.2	3.2	4.7	5.1

¹ Meat includes beef, pork, lamb, fish, poultry, and variety meats.

² Per person consumption for each member within the family.

APPENDIX TABLE 8. MEAT¹ CONSUMPTION PER PERSON AS RELATED TO EDUCATION² AND PER CAPITA INCOME BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Education	Per capita income			
	\$000-599	\$600-1,199	\$1,200-1,799	\$1,800 & over
	Av. consumption per wk. per person ³	Av. consumption per wk. per person ³	Av. consumption per wk. per person ³	Av. consumption per wk. per person ³
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
White				
0-4 grades.....	0.8	3.1	0	2.7
5-8 grades.....	2.1	2.3	4.1	4.0
9-12 grades.....	2.6	3.1	3.5	4.4
Some college.....	2.5	3.2	3.4	4.3
B.S. & over.....	0	4.0	2.7	4.2
AVERAGE.....	2.2	2.9	3.4	4.2
Negro				
0-4 grades.....	1.9	4.0	2.1	0
5-8 grades.....	2.2	2.9	5.4	4.5
9-12 grades.....	2.2	3.1	5.3	4.1
Some college.....	0	1.8	2.1	4.9
B.S. & over.....	0	3.3	2.8	7.4
AVERAGE.....	2.1	3.2	4.6	5.1

¹ Meat includes beef, pork, lamb, fish, poultry, and variety meats.

² Average educational level for husband and wife.

³ Per person consumption for each member within the family.

APPENDIX TABLE 9. EGG CONSUMPTION PER PERSON AS RELATED TO SOCIO-ECONOMIC STATUS AND PER CAPITA INCOME BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Socio-economic score	Per capita income			
	\$000-599	\$600-1,199	\$1,200-1,799	\$1,800 & over
	Av. consumption per wk. per person ¹	Av. consumption per wk. per person ¹	Av. consumption per wk. per person ¹	Av. consumption per wk. per person ¹
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
White				
0-4.....	0	6.0	0	0
5-8.....	3.6	6.6	6.9	18.0
9-12.....	5.8	7.5	11.8	11.5
13-15.....	7.4	6.5	7.5	8.2
16-20.....	0	6.8	6.5	9.1
21-24.....	0	4.5	5.6	7.3
AVERAGE.....	5.6	6.8	6.8	8.8
Negro				
0-4.....	3.7	4.0	9.0	0
5-8.....	3.2	5.0	12.0	0
9-12.....	3.9	5.2	8.5	0
13-15.....	3.9	5.0	7.9	7.0
16-20.....	3.6	5.5	7.7	8.1
21-24.....	0	0	0	9.0
AVERAGE.....	3.6	5.1	8.2	8.1

¹ Per person consumption for each member within the family.

APPENDIX TABLE 10. EGG CONSUMPTION PER PERSON AS RELATED TO EDUCATION¹ AND PER CAPITA INCOME BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Education	Per capita income			
	\$000-599	\$600-1,199	\$1,200-1,799	\$1,800 & over
	Av. consumption per wk. per person	Av. consumption per wk. per person	Av. consumption per wk. per person	Av. consumption per wk. per person
	Number	Number	Number	Number
White				
0-4 grades.....	10.9	12.0	0	12.0
5-8 grades.....	4.7	6.7	7.7	9.9
9-12 grades.....	6.2	7.2	6.8	7.9
Some college.....	6.0	6.2	6.2	8.3
B.S. & over.....	0	0	6.6	8.9
AVERAGE.....	5.6	6.8	6.8	8.5
Negro				
0-4 grades.....	3.7	7.0	6.0	0
5-8 grades.....	3.6	5.0	10.4	15.0
9-12 grades.....	3.4	4.5	7.9	8.3
Some college.....	0	4.5	4.1	6.0
B.S. & over.....	0	7.0	9.0	8.4
AVERAGE.....	3.6	5.2	8.3	8.4

¹ Average educational level of both husband and wife.

APPENDIX TABLE 11. FAMILY POSSESSIONS AND CONVENIENCES BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Items	White	Negro
	Per cent	Per cent
Electric or gas refrigerator.....	99.1	87.0
Ice refrigerator.....	0.4	7.7
Home freezer as a separate unit.....	15.3	2.4
Freezer locker.....	1.3	0
Type stove—electric.....	65.1	33.3
gas.....	30.1	31.9
coal.....	0	1.9
wood.....	0.4	30.9
kerosene.....	0	0
other.....	4.4	1.9
Running water.....	99.1	76.8
Water heater.....	88.7	44.9
Washing machine.....	85.6	52.2
Electric food mixer.....	69.4	15.9
Pressure canner.....	54.2	4.4
Disposal unit.....	7.4	0.5
Dishwasher.....	14.9	0.5
Telephone.....	84.7	49.8
Radio.....	95.2	88.9
Television.....	85.6	53.6
Daily paper.....	79.9	52.7
Weekly paper.....	43.7	13.5
Auto—1 car.....	70.7	38.7
2 cars.....	14.0	1.5
3 cars.....	3.1	0
4 cars.....	0.4	0

APPENDIX TABLE 12. NUMBERS AND PERCENTAGES OF FAMILIES IN VARIOUS INCOME GROUPS BY RACE, ALABAMA CITIES WITH 10,000 TO 25,000 POPULATION, 1958

Income groups	White		Negro	
	Number	Per cent	Number	Per cent
No information given.....	9	3.9	11	5.3
0-1,499.....	11	5.0	60	30.6
1,500-2,999.....	33	15.0	86	43.9
3,000-4,999.....	60	27.3	39	19.9
5,000-7,999.....	61	27.7	10	5.1
8,000 and over.....	55	25.0	1	0.5
TOTAL	229	100.0	207	100.0
Number of people.....	800		821	
Average size family.....	3.49		3.97	
Average family income.....	\$5,920.45		\$2,352.04	
Per capita income.....	1,876.89		779.85	
Average family income for white and Negro.....	\$4,885.61			

APPENDIX TABLE 13. EDUCATIONAL LEVEL OF HUSBANDS AND WIVES IN GRADES COMPLETED BY RACE, ALABAMA CITIES 10,000 TO 25,000 POPULATION, 1958

Family member	Av. educa-	No school-	1-4	5-8	9th & more	High school	Some college	B.S. & over
	tion	ing	grades	grades	but not grad- uate	graduate		
	Grade	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
White								
Husband.....	11.8	0.5	2.9	18.0	17.8	20.7	18.8	21.6
Wife.....	11.4	0	4.1	17.6	16.7	31.1	17.1	13.5
Negro								
Husband.....	7.6	4.0	19.2	39.7	17.2	9.3	4.0	6.6
Wife.....	7.9	1.0	18.3	39.1	22.3	11.2	2.5	5.6