MAY 1 2 1997:

0074-A-01

A98.2: R31/21



United States Department of Agriculture

Food and Consumer Service

Office of Analysis and Evaluation

Authorized Food Retailer Characteristics Study:

Technical Report IV

Authorized Food Retailers' Characteristics and Access Study

February 1997

97-021772



United States Department of Agriculture

Food and Consumer Service

Office of Analysis and Evaluation Authorized Food Retailer Characteristics Study

Technical Report IV: Authorized Food Retailers' Characteristics and Access Study

February 1997

Authors: Richard E. Mantovani Lynn Daft Theodore F. Macaluso James Welsh Katherine Hoffman

Submitted by:

Macro International Inc. 11785 Beltsville Drive Calverton, MD 20705-3119 Submitted to:

Office of Analysis and Evaluation USDA Food and Consumer Service 3101 Park Center Drive Alexandria, VA 22302

Project Director: Richard Mantovani

Project Officer: Ken Offerman

This study was conducted under Contract No. 53-3198-3-007 with the Food and Consumer Service, United States Department of Agriculture, under the authority of the Food Stamp Act of 1977, as amended.

ACKNOWLEDGMENTS

The authors would like to acknowledge all those who contributed to this study. We would like to acknowledge Ken Offerman, the Food and Consumer Service (FCS) project officer. In addition to providing critical input into the various components of the study, his ability to bring together the various stakeholders in a productive fashion was instrumental in developing this study. Additional important contributions to this effort from the Office of Analysis and Evaluation were made by Steven Carlson and Margaret Andrews, both of whom provided valuable insights and direction throughout the study and during the development of the final reports. Others from FCS who made significant contributions include Suzanne Fecteau, Lynn Jordan, Jill Herndon and Judy Love from the Benefit Redemption Division, Food Stamp Program, and Debbie McIntosh, Laurie Hickerson and Chris Casey with the Supplemental Food Program Division (WIC). A special thanks to Mark Denbaly and Phil Kaufman with the Economic Research Service (USDA/ERS) who formally reviewed a key early draft final report providing valuable comments and for their insights on the retailer food industry at critical points during the study. We also wish to acknowledge the valuable input provided by Zy Weinberg (Director Inner-City Food Access Program, Public Voice), Celia Slater (Manager, Community Relations, Food Marketing Institute, FMI) & her staff, and Jean Kinsey (Professor and Director, The Retail Food Industry Center, University of Minnesota), all of whom participated in the formal review of the first draft final report.

In addition to the authors, other staff critical to this effort include: Lisa Hammer, whose management of the retailer survey was critical to the success of this study. Ms. Hammer also conducted the site visits that provided valuable insight on food availability and access in several communities. Sara Sullivan is also to be commended for her role in both the survey effort and the site visits. Finally, we would like to thank both Pedro Saavedra and Joseph Steinberg for their valuable contributions to the sample design.

Table of Contents

Executive Summary

Purpose			 		• •	 				 					 		• •					 		 						. 1	i.
Methods			 		• •					 					 							 		 						. 1	i
Findings			 			 				 					 							 		 						. 1	i
Conclusi	or	1	 			 			•	 				• •	 				•			 		 				• •	. i	iii	i

Chapter I. Introduction

Store Type: Supermarkets, Groceries, and Other Stores	I-1
Retailer Availability	1-2
Findings from Earlier Research	I-4
Purposes and Approach of This Study	1-6

Chapter II. Data and Methods

Survey of Authorized Retailers II-1
Variety II-5
Cost/Price II-6
Quality and Quantity II-7
Intensive Site Analyses II-8
Data Sources II-8
Methods II-9
National ZIP Code Area Analysis II-10
Data Sources and File Construction II-10
Methods II-11
Analytic Decisions Relating to Store Type and Location II-11

Chapter III. Store Type and Access to Food

Variety	III-1
Availability and Quantity	III-6
Quality	III-13
Cost	III-16
Full Service Departments and Non-Food Product Lines	III-24

Table of Contents

Chapter IV. Retailer Availability and Mix: A National Perspective

Food Retailer Availability	IV-2
Retailer Availability and Level of Urbanization	IV-6
Retailer Availability in High Poverty Areas	

Chapter V. Accessibility and Availability of Retailers in Highly Urbanized Areas

Retailer Characteristics	V-1
Accessibility in Urban Areas	V-9
Underserved Areas	-10

Chapter VI. Retailer Characteristics and Access Outside of Highly Urbanized Areas

Sparsely Populated Areas
Retailer Characteristics
Accessibility to Stores in Sparsely Populated Areas
Underserved Sparsely Populated Areas VI-10
Populated Mixed Areas Outside of Highly Urbanized Areas
Retailer Characteristics VI-16
Accessibility

Appendix A Sampling Procedures

Appendix B	Technical	Memorand	um
------------	-----------	----------	----

Deriving Price Indices for the Market Basket	B-1
Assessment of Variety and Availability	B-11
Assessment of Quantity and Quality	B-18

Appendix C	Detailed Tables
Appendix D	Questionnaire

List of Exhibits

Chapter I. Introduction Table I-1. Profile of Retailers Authorized for The Food Stamp Program, by Major Store Type Chapter II. Data and Methods

Figure II-1	Location of Counties Comprising the 40 Primary Sampling Units for the	
	Retailer Survey	II-2
Figure II-2	Full Market Basket Used for Data Collection	11-3
Figure II-3	The Core Market Basket	11-4

Chapter III. Store Type and Access to Food

Table III-1	Food Groups Represented in the Market Basket
Figure III-1	Index of Variety, by Store Type and Attributes of Variety
Figure III-2	Percent of Stores Providing at Least 50 Percent of the Market Basket
-	Across Major Food Groups, by Store Type III-5
Figure III-3	Index of Product Availability Within the Market Basket, by Store Type III-8
Figure III-4	Availability of Market Basket Foods Within Specified Food Categories,
	by Store Type
Table III-2	Percentage of Stores by Sales of Staple Foods, by Store Type III-10
Figure III-5	Average Number of Households Served by Inventory Available in Stores,
	by Store Type
Figure III-6	Percent of Stores Using a Particular Stocking Pattern, by Store Type III-12
Figure III-7	Average Percent of Fresh Produce Found to be of Acceptable Quality,
	by Store Type III-14
Figure III-8	Percent of Stores With Given Quality Levels, by Store Type III-14
Table III-3	Percentage of Fresh Produce Items Found to be of Unacceptable Quality,
	by Store Type III-15
Figure III-9	Average Indexed Cost of the Market Basket, by Store Type III-18
Figure III-10	Costs for Specified Food Groups, by Store Type Ill-19
Table III-4	Average Indexed Cost of Selected Products Relation to Average Cost
	in Supermarkets, by Store Type Ill-22
Figure III-11	Costs for Specified Food Items, by Store Type III-23
Figure III-12	Average Number of Full-Service Departments and Non-Food
	Product Lines, by Store Type III-25
Figure III-13	Comparison of Cost and Availability, by Store Type

List of Exhibits

Chapter IV. Retailer Availability and Mix: A National Perspective

Table IV-1	Number of ZIP Code Areas by Number of Authorized Stores in Area IV-2
Table IV-2	Supermarket Availability, and Retailer Mix in the
	Presence of Supermarkets
Table IV-3	Retailer Mix in the Presence of a Large Store IV-3
Table IV-4	Areas with Retailer Presence by Type of Store IV-4
Table IV-5	Characteristics and Retailers in Baltimore and Southeast Los Angeles
	Study Areas
Table IV-6	Retailer Distribution in the South Carolina Study Area IV-5
Table IV-7	Distribution of Geographic Area, Total U.S. Population
	and Population in Poverty, by Urbanization Level
Table IV-8	Number and Percent of Stores, by Store Type and
	Urbanization Level of Store's Location IV-8
Table IV-9	Distribution of ZIP Code Areas, Total Population and
	Population Living in Poverty, by Urbanization Level
	and Availability of Retailers
Table IV-10	Number and Percent of Stores in Urban Areas, by Store Type
	and Poverty Level of Store's Location
Table IV-11	Number and Percent of Stores in Mixed Areas, by Store Type
	and Poverty Level of Store's Location
Table IV-12	Number and Percent of Stores in Rural Areas, by Store Type
	and Poverty Level of Store's Location
Table IV-13	Geographic, Population and Retailer Characteristics of ZIP Code Areas,
	by Urbanization Level and Poverty Quintile IV-14
Table IV-14	Amount and Percent of Redemptions, by Store Type
	and Urbanization Level IV-15
Table IV-15	Amount and Percent of Redemptions, by Store Type
	and Poverty Level of Store's Location
Table IV-16	Amount and Percent of Redemptions in Urban Areas, by Store Type
	and Poverty Level of Store's Location
Table IV-17	Amount and Percent of Redemptions in Mixed Areas, by Store Type
	and Poverty Level of Store's Location
Table IV-18	Amount and Percent of Redemptions in Rural Areas, by Store Type
	and Poverty Level of Store's Location
Figure IV-1	Market Factors Relating to Predicting Store Location
Figure IV-2	The Average Number of Stores in Area Controlling for Demographics
	By Store Type, Urbanization, and Poverty Level
Table IV-19	Regression Coefficients Demonstrating the Effects of Selected
	Demographic and Housing Measures on Store Location

List of Exhibits

Chapter V. Accessibility and Availability of Retailers in Highly Urbanized Areas

Table V-1	Variety in Brands, Packaging, and Assortment of Market Basket Items
	in Highly Urbanized Areas, by Store Type and Poverty Level
Table V-2	Percent of Stores Carrying At Least 50 Percent of the Market Basket
	Across Major Food Groups in Highly Urbanized Areas,
	by Store Type and Poverty Level V-2
Figure V-1	Percentage of Market Basket Available in Highly Urbanized Areas,
	by Store Type and Poverty Level V-3
Table V-3	Percentage of Product Grouping Availability in Highly Urbanized Areas,
	by Food Group and Poverty Level V-4
Table V-4	Percentage of Stores in Which Foods Were Not Available in
	Highly Urbanized Areas, by Food Group, Store Type and Poverty Level . V-5
Table V-5	Share of Food Stores in Highly Urbanized Areas Selling Foods in
	All Four Staple Food Categories, by Store Type and Poverty Level V-6
Table V-6	Average Number of Households Whose Market Basket Needs
	Are Met from Shelf Stocks in Highly Urbanized Areas,
	by Store Type and Poverty Level V-6
Table V-7	Percentage of Selected Food Items in Highly Urbanized Areas Found
	to be of Unacceptable Freshness, by Store Type and Poverty Level V-7
Table V-8	Store- and Redemption Based Cost Index of Market Basket in
	Highly Urbanized Stores, by Store Type and by Area Income V-8
Table V-9	Average Number of Full-Service Departments and Types of Non-Food
	Products Sold in Highly Urbanized Areas,
	by Store Type and Poverty Level V-8
Table V-10	Proximity of Authorized Food Stamp Retailers to Food Stamp Program
	Participants in Three Highly Urbanized Areas V-10
Table V-11	Number and Percentage of Urban Unserved Areas by Poverty Level V-11
Table V-12	Distance of Underserved Areas to Areas with a Supermarket or
	Large Grocery, by Poverty Level

Chapter VI. Retailer Characteristics and Access Outside of Highly Urbanized Areas

Table VI-1	Variety in Brands, Packaging, and Assortment of Market Basket Items
	in Sparsely Populated Rural Areas, by Store Type and Poverty Level VI-3
Table VI-2	Percentage of Stores Providing at Least 50 Percent of the Market Basket
	Across Major Food Groups in Sparsely Populated Rural Areas,
	by Store Type and Poverty Level VI-3
Figure VI-1	Market Basket Availability in Sparsely Populated Rural Areas,
	By Store Type and Poverty Level
Table VI-3	Availability of Foods in Sparsely Populated Rural Areas, by Food Group,
	Store Type and Poverty Level
Table VI-4	Percentage of Food Stores in Sparsely Populated Rural Areas
	Selling Foods in All Four Staple Food Categories, by Store Type
	and Poverty Level

.

7

List of Exhibits

Table VI-5	Average Number of Households Whose Market Basket Requirements
	Are Met from Shelf Stocks in Sparsely Populated Rural Areas,
	by Store Type and Poverty Level
Table VI-6	Percentage of Selected Food Items Of Unacceptable Quality in
	Sparsely Populated Rural Areas, by Store Type and Poverty Level VI-7
Table VI-7	Store-Based and Redemption-Based Cost Indices in Sparsely
	Populated Rural Stores, by Type of Store and by Poverty Level
Table VI-8	Average Number of Full-Service Departments and Types of Non-Food
	Products Sold in Sparsely Populated Rural Areas,
	by Store Type and Poverty Level
Figure VI-2	West Virginia Study Area
Figure VI-3	South Carolina Study Area
Figure VI-4	Lincoln & Otero Counties New Mexico Study Area
Table VI-9	Number and Percentage of Underserved Sparsely Populated Rural Areas
	by Poverty Level of Area
Table VI-10	Variety in Brands, Packaging, and Assortment of Market Basket Items
	in Mixed Areas, by Store Type and Poverty Level of Area
Table VI-11	Percentage of Stores Providing at Least 50 Percent of the Market Basket
	Across Major Food Groups in Mixed Areas,
	by Store Type and Poverty Level
Figure VI-5	Market Basket Availability in Mixed Areas,
	By Store Type and Poverty Level
Table VI-12	Availability of Foods in Mixed Area Food Stores, by Food Group,
	By Food Group and Poverty Level, for All Store Types
Table VI-13	Average Number of Households Whose Market Basket Requirements
	Are Met in Mixed Areas, by Store Type and Poverty Level
Table VI-14	Percentage of Selected Food Items in Mixed Area Stores Found
	to be of Unacceptable Freshness, by Store Type and Poverty Level VI-20
Table VI-15	Store and Redemption Based Cost Indices for Stores in Mixed Areas,
	by Store Type and by Poverty Level
Table VI-16	Average Number of Full-Service Departments and Average Number
	of Non-Food Product Lines Sold in Mixed Areas,
	by Store Type and Poverty Level
Table VI-17	Proximity of Authorized Food Stamp Retailers to Food Stamp Program
	Participants in Three Mixed Areas
Table VI-18	Distance to Next Nearest Large Store From Areas Underserved
	By Authorized Retailers, in MSA Mixed Areas, by Poverty Level VI-24
Table VI-19	Distance to Next Nearest Large Store in Mixed Small-City Areas,
	by Poverty Level



PURPOSE

This study presents a national assessment of the variety, quality and cost of food available at food retailers authorized by the Food Stamp Program (FSP). For over 20 years the FSP has been the cornerstone of the national commitment to protect the nutrition, health, and well being of America's low-income families. By design and law, the program seeks to achieve its nutritional goals by working through "normal channels of trade" – food retailers. It is therefore critical to know whether food stamp families are in fact able to purchase a variety of quality food at a reasonable price from food retailers authorized to accept food stamps.

In recent years, researchers and advocates for the poor have argued that access to food of reasonable quality and price through normal channels of trade may be problematic in low-income urban areas and sparsely populated rural areas. The concerns have been that the poor pay more for less, that chain supermarkets have left the inner city, and that food stamp families living in high-poverty urban and rural areas must buy their food from small stores with limited selection and high prices. The primary question addressed in this report is: do food stamp families have the same degree of access—not only in terms of proximity to food stores but also in terms of the quality, variety and price of food available in nearby stores—as families with higher incomes?

METHODS

We collected information on a market basket of foods from a nationally representative sample of almost 2,400 retailers authorized by the FSP. A market basket was analyzed to calculate three measures pertaining to the foods offered within each store: the percent of the market basket available for purchase (a measure of variety), an index of the quality of the items available for sale, and the annualized cost of purchasing the market basket at the store. In addition, we obtained the complete national listing of all 200,000 food retailers authorized by the FSP and analyzed it to show how the major types of food stores are distributed geographically¹. We linked census demographic data by ZIP Code to the street address for each store in both the market basket survey and the national listing in order to explore how store characteristics and service to food stamp participants vary by location in urban or rural ZIP Codes as well as by location in ZIP Codes where the percent of the population in poverty is high or low.

FINDINGS

The type of store at which food stamp customers buy food is critical, for store type determines the selection of food available and exerts a large influence on the cost of food. Quality of food does not vary by type of store. Our results confirm the common belief that supermarkets supply, on average, nearly all food items in a market basket and have the lowest cost of any store type.

10

Authorized Retailers' Characteristics and Access Study

i

¹ We use six categories: supermarkets, large groceries, small groceries, convenience stores and/or grocery/gas combinations, specialty stores (such as meat or produce markets) and "other" (such as general stores, co-ops, route vendors).

Executive Summary

Large grocery stores have an important role in food access. While a step down from supermarkets, they are closer to supermarkets than to other types of food retailers on both selection and cost. This is especially true in rural areas where large groceries provide the same level of selection and cost as supermarkets.

People and food stores appear to be located together. As a result few people lack access to supermarkets or large groceries. The population in poverty has about the same access to supermarkets as the general population. We sorted every ZIP Code into mutually exclusive categories: one or more supermarkets present; no supermarket but one or more large groceries present; small stores but no supermarket or large grocery; and no authorized store of any type present. Nationally, only 2 percent of the total population and 2 percent of the population under the poverty line live in ZIP Codes with no authorized food stores; 90 percent of the total population and 90 percent of the population under the poverty line live in ZIP Codes with at least one supermarket or large grocery present.

Store presence in high-poverty areas

The preceding analysis (which sorts ZIP Codes by the type of stores present within them) suggests that on the whole the food retailing system serves poor and non-poor alike. But this finding leaves open the possibility that specific communities may still have inadequate access. We therefore looked specifically at areas with high concentrations of people in poverty.

The average number of supermarkets in high-poverty urban areas is slightly less than in other urban areas, even when controlling for many of the market factors that influence store placement. We examined whether population, geographic size of the area, and supply and demand factors that influence food retailing can account for the number of supermarkets observed in an area (our analysis could not include the effect of zoning regulations or difficulties in assembling parcels of land). The estimated average number of supermarkets in high-poverty urban areas (0.9 supermarkets) is lower than the average number in lower-poverty urban areas (1.14 supermarkets). In rural high-poverty areas, market factors are sufficient to explain the number of supermarkets and large groceries that exist.

Availability and cost of food in high-poverty urban areas

Food stamp families shopping in high-poverty urban areas do not need to spend significantly more for food than those shopping in other areas. The cost of our market basket in supermarkets in urban high-poverty areas is nearly equivalent to stores in lower-poverty areas. When we examine where food stamp households actually shop, we find that they save money by selecting the stores that they visit. For those frequenting supermarkets in high-poverty areas, shoppers save approximately 4 cents on the dollar.

Food shoppers are able to find nearly the same percentage of our market basket available among supermarkets in high-poverty urban areas as in other urban areas. Some differences on specific *fresh* items were found. Only 33 percent of supermarkets in high-poverty areas carry fresh seafood compared to 83 percent in other urban areas. Among large groceries, fresh meat is

Executive Summary

more available in high-poverty areas than elsewhere; fresh produce slightly *less* available in highpoverty areas. Fresh produce and meat, however, are available in almost all supermarkets in urban areas regardless of location. Shoppers can find a high level of acceptable quality food in urban authorized stores, regardless of store type or location.

Although the cost, availability, and quality of food do not vary between urban supermarkets in high-poverty and other areas, the total shopping experience does. Supermarkets in highpoverty urban areas offer substantially fewer full-service departments and non-food product lines than supermarkets in other urban areas. In addition, supermarkets in high-poverty urban areas offer 5 to 10 percent less variety in brands and package types than those in other areas.

Availability and cost of food in high-poverty rural areas

Among stores in rural areas, prices were always close to the same in high-poverty areas as in other areas. This was true both when calculated on a store basis or when adjusted for where participants actually shop.

Food stamp participants are able to find a slightly higher percentage of our market basket available among supermarkets in high-poverty rural areas as in other rural areas. Large groceries in rural areas provide the same level of selection as supermarkets. There is very little difference between high-poverty and other areas in level of selection. Moreover, in rural areas, shoppers can find acceptable quality food at virtually every authorized store: quality levels were identical across different store types and poverty levels.

CONCLUSION

Overall, these findings confirm that the design of the Food Stamp Program—to work through normal channels of retail trade—effectively reaches low-income populations and provides them with high quality food at reasonable prices. In most parts of the country, the low-income population can find supermarkets and large groceries that stock a wide selection of food that meets quality standards at reasonable prices. Other kinds of stores fill market niches when needed.

About forty percent of the rural population reside in localities without supermarkets or large groceries. However, this appears to reflect the economics of food retailing. Moreover, the absence of such stores does not fall disproportionately on the poor: proximity to stores is identical for both the population in poverty and the total population.² Finally, in rural areas, the price of the market basket was about the same among stores in high-poverty and lower-poverty areas.

In urban areas, the number of supermarkets and large grocery stores is lower in high-poverty areas than in other areas and the shopping experience in supermarkets (as measured by the number of fullservice departments, non-food lines, availability of fresh seafood and variety of package types) is

² Many observers point out that access to transportation may be problematic for low-income families and it is possible that the transportation burden of living in rural areas falls more on the poor than the non-poor.

Authorized Retailers' Characteristics and Access Study

Executive Summary

more restricted. However, there appears to be little effect on the cost of food. The price of our market basket was either about the same or lower among supermarkets and large groceries in high-poverty areas as among those in lower-poverty areas. The mix of stores in high-poverty urban areas is characterized by an extraordinarily high abundance of small groceries with less variety and higher prices than supermarkets. However, supermarkets exist in those same high-poverty urban areas and, based on actual food stamp redemption data, food stamp participants shop heavily at those supermarkets and appear to save about four cents on the dollar compared to supermarkets in other urban areas

B

Introduction

The Food Stamp Program (FSP) is the nation's principal means of providing nutritional assistance to low-income people. In 1995, 26 million Americans received FSP assistance, the equivalent of one out of 10 Americans. Eligible individuals and households used the assistance to purchase food through "normal channels of distribution," as specified by the 1977 Food Stamp Act, as amended.

For the FSP, the nation's commercial food system—in which food retailers are a critical component—constitutes "normal channels." Food retailers that meet specified eligibility criteria are authorized to redeem food stamp coupons for the purchase of eligible foods.¹ Of consequence is the ability of the authorized food retailer system to provide FSP participant households access to high-quality, reasonably priced food of sufficient variety to meet their dietary needs. The degree to which food retailers are available and accessible determines the ability of the FSP to meet its goals.

Two questions, therefore, are central to these availability and access issues. First, what types of stores can provide shoppers with a basic set of foods that meet nutritional requirements? Second, are retailers that can provide those foods located in sufficient concentration to ensure that individuals and households are close to a store?

Of particular concern to FSP is whether low-income populations face difficulties in finding stores that can provide high-quality foods at reasonable prices. If so, issues relating to food security are raised along with whether the FSP is achieving the maximum benefit from its current approach using "normal channels." In anticipation of the report's findings, it seems that low-income populations do have the same level of access to food retailers authorized by the program as the general public does. This generalization, however, does not point to a uniformity of access—there are pockets in which access to larger stores is limited.

Store Type: Supermarkets, Groceries, and Other Stores

Food retailers are clearly essential to the delivery of FSP benefits. Retail food establishments are commonly divided into two broad categories:

- Grocery stores
- Specialty food stores.

Grocery stores sell a variety of types of foods, while specialty food stores (as the name implies) specialize in a single food category, such as bakery products or seafood. Grocery stores are further subdivided, generally by the dollar sales volume and breadth of product line. Although there is no one uniform system used to classify grocery stores, among the categories conventionally used are supermarkets, superettes, and convenience stores.

12

¹ Examples of foods that are *not* eligible are hot foods prepared for away-from-home consumption, alcoholic beverages, tobacco products, vitamins, and paper goods and household supplies.

In addition to the retailers described above, the FSP authorizes other establishments and alternative vendors that sell food for preparation at home. Included are produce stands, combination stores such as restaurants or bars that sell food, services that deliver food customers on a preestablished route, and rolling stores, which sell food from a truck or wagon at different places during the day.

The FSP recognizes 20 different types of stores. Almost 90 percent of the stores, however, are identified as one of five types:

- Supermarkets
- Groceries
- Convenience stores
- Grocery/gas combination outlets
- Specialty stores.

Table I-1 provides the store type definitions used in this study, the approximate number of each type as estimated by national trade organizations, and the number of stores authorized by the FSP. The statistics show that the FSP has authorized a broad range of stores, covering virtually every category of food retailing.

Such a wide range of retailers in the FSP is to give food stamp participants a range of options, thus in effect enhancing access. However, it is widely recognized, and substantiated by the flow of food stamp redemptions, that supermarkets play the dominant role in providing food to FSP participants.

Retailer Availability

Availability and accessibility can be viewed either from the shopper's perspective or from the retailer's. Economists would explain those perspectives in terms of demand and supply factors. On the demand side, shoppers make decisions about the kinds of stores they choose to shop in and the foods they buy. The kinds and variety of foods supplied by area stores, as well as the prices, are important considerations in consumers' decisions to shop at one place instead of another. Proximity and convenience are key factors, too, although other concerns—such as personal safety—may overrule those considerations. Personal shopping preferences—for ethnic foods, for freshness provided in farmers' or produce stands or specialty stores, or for retailers who treat customers well—also enter the picture.

On the supply side, food retailers decide what foods they will offer customers and at what price. Other decisions—where to place the store, what size it will be, what hours it will operate, and what services to offer—reflect the retailers' assessment of the local market and the costs of operating.

Together, such decisions affect the capability of stores to meet the food needs of certain populations. Proximity of shoppers to stores that can provide a full range of foods at acceptable prices expands the options available to them. Decisions on where to locate new stores and to close old ones may expand access for some consumers and reduce it for others.

Store Type	Definition	Number Listed With Major Trade Organizations!	Number Authorized by FSP ²
Supermarkets	Food stores able to provide a full range of foods with \$2 million or more in annual sales.	30,450	30,400
Groceries	Food stores that can provide a full range of foods with less than \$2 million in annual gross sales. In this study, large groceries (stores with annual gross sales between \$500,000 and \$2 million)	42,550	Large Groceries: 13,541
are diffe with an	are differentiated from small groceries (stores with annual gross sales of less than \$500,000).		Small Groceries: 38,042
Convenience Stores and Grocery/Gas Combinations	Stores providing a limited range of foods, usually excluding fresh foods. These stores are generally aimed at supplementing larger stores and providing convenience in terms of proximity to shoppers and hours.	84,000	76,185
Specialty Stores	Stores specializing in one or two product lines such as produce, meats, or baked goods.	18,500	17,352
Other Retailers	Includes health food stores, co-op food stores, routes, multistall and produce stands, general stores, and combination stores that sell food in addition to other goods		23,881

number of stores equals 199,401. This number excludes authorized stores in Alaska, Hawaii, and the territories as well as those identifying themselves as wholesalers or military commissaries.

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

Issues of location and proximity are reducible to two related concerns. First, are there communities with a very low concentration of retailers? Second, even in communities with adequate levels of retailer concentration, are the retailers close to most of the population? In the last decade, discussion and research have focused on the lack of chain store or supermarket presence in low-income urban "inner city" areas and sparsely populated rural areas. Retailers view inner-city areas as difficult places to operate businesses because of the high operating costs and entry barriers—such as scarcity of land and financing, zoning restrictions and other ordinances, and high risks of crime.² Sparsely populated rural areas, on the other hand, provide too small a customer base to allow a sizable store to survive.

² A recent issue paper published by the Public Voice for Food and Health Policy has addressed many of these issues, as they apply to the inner city, in a comprehensive fashion. Public Voice for Food and Health Policy, *No Place to Shop: An Issue Paper* ... Public Voice for Food and Health Policy (Washington, D.C.: February 1996).

Findings from Earlier Research

Over a number of years, varied research studies have addressed questions of availability and access to food sources for low-income households. The studies have been framed largely in terms of the density of supermarkets or chain stores, price differences, and conditions in stores in different kinds of areas defined by income level and degree of urbanization. In a study of stores participating in the FSP in 1978, the Economic Research Service (ERS) of the United States Department of Agriculture found that food chains (firms with 11 or more stores) were underrepresented and independent food outlets prevailed in poorer "trade" areas.³ The implication was that the inherent advantages and efficiencies of chains were not as available to individuals living in low-income areas as they were to individuals living in higher-income areas. In particular, it was thought that chains could confer price advantages on shoppers.

Other studies have considered access in "inner city" areas and rural areas. Studies of access within the inner city have usually focused on comparisons with other highly urbanized areas. The results of those studies have been mixed.

In one study of four communities in Rochester, New York—including inner-city areas—it was estimated that 30 to 40 percent of low-income families did their shopping at independent stores rather than chain stores, and paid a 10 percent premium for doing so.⁴ Similar findings were reported in a 1991 study of New York City stores,⁵ in which individuals from poor communities paid 9 percent more for the same foods than individuals from middle-class communities. A 1993 study of Los Angeles found the cost of food to be three to 6 percent higher in the two-square-mile inner-city area studied than in comparative suburban areas.⁶

In a 1988 study of prices in 322 supermarkets in 10 metropolitan areas, the USDA found that although central-city supermarkets had higher prices than supermarkets in other parts of the metropolitan area, the higher prices were not associated with low-income neighborhoods.⁷ Instead, stores in higher-income areas had higher prices for food.

³ P. E. Nelson, Analysis of the Impacts of Food Stamp Redemptions on Food Stores and Regions, Fiscal Year 1978, Technical Bulletin No. 1946. Department of Agriculture, Economics and Statistics Service (Washington, D.C. April 1981).

⁴ M. Alexi, G. H. Hanes Jr., and L.S. Simon, *Black Consumer Profiles: Food Purchasing in the Inner City.* University of Michigan Press (Ann Arbor: 1980).

⁵ M. Green, *The Poor Pay More for Less*, New York Department of Consumer Affairs. (New York, N.Y., April 1991).

⁶ L. Ashman, et al., Seeds of Change: Strategies for Food Security for the Inner City. Southern California Interfaith Hunger Coalition. (Los Angeles, 1993).

⁷ P. E. Nelson and J. M. McDonald, *Food Cost Variations: Implications for the Food Stamp Program*, by, Technical Bulletin No. 1737 U.S. Department of Agriculture, Economics and Statistics Service (Washington, D.C., April 1981).

A more recent study examined supermarket presence in 21 metropolitan areas and found the existence of an urban grocery store gap.⁸ The study viewed the concentration of supermarkets compared to the proportion of households receiving public assistance across ZIP Codes in the metropolitan areas. It was found that low-income households tend to live in areas with lower levels of supermarket concentration and tend not to have automobiles—thus limiting their ability to access other areas within the community.

Various studies have compared food prices and access across urban, suburban, and rural areas. A 1979 study of 14 food stores in Omaha, Nebraska, and surrounding areas found that the food prices in inner city stores were 3 to 6 percent lower than food prices in suburban and rural areas.⁹ A 1988 study of food retailing in rural areas found that though the ratio of supermarkets to population size was similar in urban and rural areas, rural households had fewer stores to choose from and had to travel further to reach them than people living in urban areas.¹⁰ In their study of rural areas, Morris et. al. concluded that smaller stores had higher prices than supermarkets.¹¹ They also found that the quantity and quality of food offered in smaller stores were not as good as that offered in supermarkets. More recently, a study done in 1992 of three areas in the State of New York found prices in urban areas to be higher than those in rural or suburban areas.¹²

Those studies and others suggest that rural populations generally have less access to stores offering extensive choices in high-quality food. The studies have not, however, been clear as to whether inner-city populations have greater or lesser access to acceptably priced food than other populations. Nevertheless, as the contradictions in their findings suggest, the studies also suffer some major limitations. Many were based on very small samples or on case studies of particular markets or neighborhoods. Most focused on supermarkets or large grocery stores to the exclusion of smaller or more specialized food stores. Findings related to food prices are particularly hard to interpret in view of the small sample sizes in many cases and due to the wide variation in the size and composition of the market baskets that were used, as well as in the approaches to weighting individual items to derive an overall market basket measure.

⁸ R.W. Cotterill and A.W. Franklin, "The Urban Grocery Store Gap," report for the Food Marketing Policy Center, University of Connecticut. (Storrs, Connecticut, May 1995).

⁹ D. A. Ambrose, "Retail Grocery Pricing: Inner City, Suburban, and Rural Comparisons," *Journal of Business*, 1979, vol. 52 no. 1, p. 993.

¹⁰ P. M. Morris, et al., "Food Security in Rural America: A Study of the Availability and Costs of Food," Journal of Nutrition Education, vol 24, no. 1, Jan/Feb. supplement, 1992, p. 525.

[&]quot; Ibid. Morris et al.

¹² E. G. Crockett, et al. "Comparing the Cost of a Thrifty Food Plan Market Basket in Three Areas of New York State," *Journal of Nutrition Education*. Vol 24. No.1 Jan/Feb. Supplement. 1992, p. 765.

Purposes and Approach of This Study

Collectively, the results of past studies help frame the issues addressed in this study. With regard to the research and initiatives cited above, there remains a number of issues about accessibility and availability. These issues can be condensed into the following two questions:

- Do retail food stores in low-income areas offer the same level of variety, quality, quantity, and prices as outlets in other locations do?
- Are low-income households near food retailers that can provide high-quality food at comparably low prices?

In Chapter II, we present an overview of the data sources and methods used in this report. The chapter provides a basis for understanding results described in the ensuing chapters. Appendices present aspects of the methodology in greater detail.

In Chapter III, we present an analysis that demonstrates how supermarkets and other types of stores differ in the variety of high-quality and reasonably priced foods. Since the universe of stores considered in the analysis includes grocery stores, convenience stores, specialty stores, and other types of food retailers, this analysis provides a benchmark for determining which stores can satisfy the market basket demands of shoppers.

In Chapter IV, data on retailer mix and availability are presented. This analysis is oriented toward describing both the distribution of various types of food retailers within market areas and the characteristics of the communities that are most closely associated with the presence of different types of retailers. The chapter, in particular, examines retailer availability in areas characterized by varying levels of urbanization and income.

Chapter V elaborates on the information presented in Chapter IV, by describing food retailers and accessibility in highly urbanized areas. In this chapter, the ability of food retailers to provide the variety of high-quality and reasonably priced food in high-poverty areas as in other urban areas. The proximity of FSP participants in these areas to stores that can fill the market basket is explored. Finally, we examine areas that lack a retailer presence.

Chapter VI parallels the analysis presented in Chapter V, but for rural areas. The analysis is presented in two parts. First, we present information on the sufficiency and accessibility of stores in sparsely populated rural areas. Again the analysis compares high-poverty to other areas. Second, we evaluate the sufficiency of food stocks and accessibility in small hamlets, towns, and cities that are likely to be used by shoppers in sparsely populated rural areas. Therefore, we address whether or not rural areas have access outside the population centers, and whether the population centers are sufficient for providing retailer food services within the area and for people living in adjacent sparsely populated areas.

As the following chapters will make clear, the research data and findings reported in this study go far beyond those of earlier efforts. In terms of geographic extent, the study provides a long-needed national perspective on the contributions of a wide range of food retailers in meeting the needs of low-income populations. This study, in short, carries analysis of FSP accessibility and consumer services further than preceding ones and is an important new resource for evaluation of a program that directly affects the lives of millions of U.S. citizens.

Data and Methods

This study is based on extant and newly collected data that provide both national and local-level perspectives on Food Stamp Program (FSP) authorized food retailers, their accessibility, and on the cost, quality, and availability of the foods they provide. It represents the most comprehensive data collection effort on this topic. This chapter introduces, with the aim of providing a background for interpreting the results in the following chapters, the major data sources and methods used to collect and analyze these data. It is organized into three sections:

- Food Stamp Authorized Retailers Characteristics
- Intensive Site Analyses
- National ZIP Code Analysis

A detailed discussion of some aspects of technical details is provided in the Appendices A and B of this report.

Survey of Authorized Retailers

In the spring and summer of 1994, data were collected from a nationally representative sample of retailers through:

- a manager interview
- a detailed inspection of store facilities
- an assessment of the cost, quality, quantity, and variety of foods available in the store

The various analyses presented in this report concentrate primarily on data collected via the assessment.

All stores that were both authorized by the FSP as of December 1993 and located in the contiguous 48 States provided the universe for the study. Military commissaries and wholesalers were eliminated from the frame, as were stores that served food on the premises. Included among the approximately 200,000 stores that met the conditions were:

- supermarkets
- grocery stores
- specialty stores
- convenience stores
- combination grocery/gas stations
- produce stands
- health food stores
- routes
- stores that sold food in addition to other items (for example, general stores and restaurants).

23

A nationally representative sample of 2,520 stores was selected from the frame. (Appendix A provides more details on the sampling approach.) A three-stage sampling approach with 40 Primary Sampling Units (PSUs) was used. (Exhibit II-1 presents the locations of the PSUs.) Efforts were made to contact all stores drawn for the sample; however, only 2,381 were willing to participate in the study, and usable data were collected from 2,378 of those.¹ Except where indicated, the entire dataset was used for the analysis. A table showing subcategories used in the analysis is provided in Appendix A.

Figure II-1

Location of Counties Comprising the 40 Primary Sampling Units for the Retailer Survey*



* Counties comprising Brooklyn, New York; Baltimore City, Maryland; and Philadelphia, Pennsylvania are not visible on map. Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997

11-2

¹ In a few cases, we could not complete the portion of the data collection involving pricing, quality and shelf stock assessments. These were cases in which food was present but could not be evaluated since they were stored in boxes for delivery. In these cases, however, we did complete the manager interviews.

Within each store, data collectors gathered information on the variety and availability of products specified by a 142-item market basket designed to include foods from all the major food groups. In assembling the market basket, the United States Department of Agriculture (USDA) Thrifty Food and Low Cost Food Plans were used to guide the selection of items within categories. Items were selected on the basis of their importance in the expenditures of low-income households. The resulting market basket of foods was analyzed by a nutritionist to ensure that the items provided a diverse and nutritious diet. A list of items in this market-basket is presented in Exhibit II.2.

	Figur	re 11-2	
	Full Market Basket U	sed for Data Collection	
Fresh/Perishables	Frozen	Canned/Bottled	Dried
Apples Bananas Green Beans Broccoli Cabbage Carrots Cantaloupe Celery Corn Cucumbers Orange Juice Lettuce Onions Oranges Peaches Potatoes, White Squash Tomatoes Bacon Roast Beef Ground Beef Cold Cuts Chicken Parts Chicken Parts Chicken Parts Chicken Parts Chicken Whole Fish Filets Frankfurters Ham, Not Canned Pork Chops Pork Sausage Fresh Turkey Butter Cheddar Cheese Eggs Soft Tub Margarine Skimmed Milk Yogurt Donuts/Pastry White Bread Other Bread Fresh Meat Pot Pie Fresh Pizza	Green Beans Broccoli Carrots Corn Fruit Orange Juice Onions Peas Potatoes Ground Beef Chicken Fish Filets Breaded Fish Ham Pork Sausage Turkey Yogurt Bread, Any Type Grain Based Breakfast Foods Sweet Baked Goods Chicken /Beef Dinner Meat Pot Pie Ice Cream Macaroni and Cheese Macaroni & Meat Frozen Pizza	Applesauce Green Beans Cabbage or Sauerkraut Carrots Corn Apple Juice Orange Juice Tomato Juice Onions Oranges Peas Peaches Potatoes, White Squash Tomatoes Fish Frankfurters Ham Poultry Pork Sausage Tuna Baked Beans Canned Beans Canned Beans Casup Macaroni and Sauce Dry Roasted Peanuts Peanut Butter Soup, with Meat Soup, Non-Meat Soup, Chick 1 Noodle Spaghetti Sauce, Meatless Hydrogenated Vegetable Fat Jelly Mayonnaise Canned Whole Milk Milk(Skim/Lowfat/Evaporat ed Salad Dressing Diet Soft Drinks Non Diet Soft Drinks Maple or Corn Syrup Vinegar	Fruits Peas, Beans Potato Chips White Potatoes Fish Eggs Skim/Lowfat Milk Bran/Wheat Cereal Rich/Corn Cereal Presweetened Cereal Unsweetened Corn Flakes Cookies Cornmeal Soda Crackers All Purpose Flour Whole Wheat Flours M & M Type Candy Oatmeal Macaroni Popcorn Salt Spaghetti Dry White Sugar White Rice Macaroni and Cheese Dinne Pizza Mixes Soup Mixes Coffee Regular Coffee Instant Peeper/Spices Powdered Ades Salad Dressing Mixes Tea

Authorized Retailers' Characteristics and Access Study

11-3

A second core market basket, containing 42 items selected from the larger food basket, was used to collect information on prices, and on the quality and quantity of the foods available in the store. The food items were selected on the basis of their relative sales volume within each of nine food categories. A list of items used in this core market basket is provided in Exhibit III-3.

		Figure II-3	
	The Co	re Market Basket	
Fresh Ground Beef	Fresh Lettuce	Ice Cream	Canned Macaroni
Fresh Pork Chops	Fresh Tomatoes	Eggs	Catsup
Fresh Chicken	Frozen Orange Juice	Whole Wheat Flour	Peanut Butter
Fresh Fish Fillets	Frozen Potatoes	Dry Spaghetti	Canned Chicken Soup
Packaged Bacon	Canned Applesauce	White Rice	Canned Spaghetti Sauce
Frankfurters	Canned Corn	Corn Flakes	Soft Drinks, Cola
Canned Tuna	Canned Apple Juice	Bread	M&Ms type candy
Fresh Apples	Potato Chips	Crackers	Sugar
Fresh Bananas	Cheddar Cheese	Frozen Pot Pie	Coffee
Fresh Oranges	Stick Margarine	Frozen Pizza	
Fresh Potatoes	Whole White Milk	Dry Macaroni & Cheese	

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

Both market baskets were selected so as to maximize the ability to collect consistent information across all stores in the sample. Although they cannot be characterized as representing the full range and breadth of the foods the stores carry, the items do represent all major categories of household food purchases and the leading types of foods in each category. Our efforts were oriented not toward describing retailers in terms of the total range and breadth of the goods they carried, but toward reporting whether or not the retailers could satisfy the basic food requirements of a typical shopper. More information on our approach is provided in the Technical Memorandum that appears in Appendix B.

The data collectors were instructed to act like knowledgeable consumers trying to fill a market basket. Training was provided to standardize data collection procedures.

The approach used in the survey was "store-based." That is, we viewed the store as the primary unit of analysis and collected information on the entire market basket from each store in the sample. If a store could not provide a specific item in the market basket, we noted the absence of the item and continued to the next item. At each store, we collected data that would allow characterization of the store on the basis of the variety of food products offered, the quantity and quality of food, and the overall cost of the market basket.

Variety

As a basis for determining the variety of foods offered, certain information was collected for a market basket of 142 commonly purchased food items. Data were collected on four dimensions of variety.

- Brands—the number of different labels available to the consumer
- Packaging—the number of different package sizes and types represented in the product category
- Assortment—the number of different variations—outside of brand, packaging and form—in which a product was available
- Form—whether the product was provided fresh, canned or bottled, frozen, or dried

The above aspects all play a part in consumers' purchasing decisions. The third dimension, assortment, is a catchall category that reflects the availability of the product across different "varieties" (for example, Winesap versus Delicious apples), grades (chuck versus choice), cuts (chops versus steaks), flavors (chocolate ice cream versus vanilla), treatments (tuna packed in oil or in water), or nutritional alternatives (skim milk versus whole milk). Although we recognize the importance of those distinctions (particularly those related to varieties considered to be more healthful), we did not attempt to address variety for each of the components of the assortment dimension.

For each aspect of variety, we determined whether or not a store could provide at least three options for shoppers, and if it could not, how many options it did provide. Unavailable products were identified as providing no choice at all. Thus, for any single item in the market basket, the "particular variety" measure ranged from zero to three.

Because our focus was on variety across all food groups or—at the least, variety across items within a particular food group—measures of variety on individual items were combined to provide an overall store measure. To allow for differences in the relative importance of the foods in household purchases, weights were assigned to food groups on the basis of consumption by households in the low-income sample of the 1987/88 Nationwide Food Consumption Survey.² Weights for individual items within food groups were assigned (where necessary) on the basis of the value of total food store sales in 1992. Thus, we were able to derive a variety measure over the entire market basket for all four aspects. This within-store

² This is the most current source of comprehensive information on food consumption and expenditures of low-income households. The 1983 Thrifty Food Plan, which was the most recent version available at the time of this analysis, is based on data gathered in 1977–78 and is outdated.

measure ranged from zero if a store could provide none of the items specified in the market basket to 100 if a store provided at least three options for every item in the market basket.

Cost/Price

In pricing food items, we used a lowest-cost strategy. That is, for each item priced, data collectors were instructed to identify the product among those meeting the indicated market basket specification that was lowest in price per pound and to record the price of that product. As a result, different brands, sizes, and types were priced in different stores (for example, perhaps Red Delicious apples might have been priced in one store and Winesap apples in another, assuming that each was the lowest-priced in its respective store). In effect, data collectors obtained information on the lowest-cost market basket satisfying the required product specifications in each store they visited.

This "lowest-cost" strategy was used by Morris et. al. in a study of rural supermarkets sponsored by Public Voice.³ It assumes that shoppers are minimizing their expenditures on food, and therefore holds consumer preferences constant. The major advantage of the "lowest-cost" approach over other measures is that it provides a base for comparing stores, since all stores, if they carry an item, will have a "lowest-cost" version. The approach reduces problems of data collection and missing data that occur when data collection attempts to price similar brands. The major disadvantage is that the "lowest cost" approach does not account for consumer preferences in terms of differences in brand, grade, cut, variety, and size, all of which have important implications for price.

Although the "lowest cost" approach reduces problems of missing data, it does not eliminate them. Therefore, strategies for coping with missing items are needed. For each analytic category or combination of categories of interest, we computed a mean expenditure for stores that stocked the item. The mean was used as an estimate of expenditures for stores in that category. For example, the average cost of fresh ground beef as priced in nine low-income supermarkets in urban areas was \$67.31 per person/year. That represents the "supermarket/low-income area/urban" store category. It was calculated by multiplying the price per pound of ground beef, in each of the nine low-income urban supermarkets in the sample, by the average number of pounds consumed per capita per annum, and then deriving a simple average of the results. Stores within the category that are missing an item are implicitly assigned the average price charged by stores that stock the item.

If no quotes were available for a particular cell, we did not use the value for computing the total market basket comparison. To facilitate our comparison, however, we adopted an approach that used an index based on supermarket expenditures for comparisons. Therefore,

³ Patricia M. Morris et al., "Food Security in Rural America: A Study of the Availability and Costs of Food," Journal of Nutrition Education, vol. 24. No. 1. (Jan./Feb. Supplement), 1992, p. 525.

the price of the items priced at a convenience store is stated as a percentage of the price of the same items priced at a supermarket.⁴

Prices were collected on 42 food items for each of the 2,378 retailers surveyed. Prices are first aggregated by a weight representing the importance of the food product in the diets of low-income households. The result is the annual cost representing the per capita amount a family of four would spend on that item if it filled the market basket from a particular store. A final step was to calculate national averages on the basis of sample weights.

Quality and Quantity

Since the collection of information on both quality and quantity placed a heavy burden on data collectors, we restricted the collection of information to the 42 items in the smaller market basket. For each item in that market basket, data collectors attempted to determine how many items meeting standards of quality were available from shelf stocks. The procedure specified the number of items to be collected. With a few exceptions, the specification was based on collecting information on as many items as would be necessary to supply the weekly needs of 10 households from current stocks.⁵ Although this limitation might seem conservative, satisfying even that requirement can be demanding, particularly for smaller food stores. However, it gave a range for determining the quantity of stock that different types of retailers kept on the shelves and for determining its availability to customers.⁶

Data collectors were provided specific guidelines for determining quality. Fresh or perishable items were evaluated for conformance with guidelines on quality specified by the USDA.⁷ Date-stamped foods were judged on whether the expiration date had been reached. Other items, such as canned and packaged foods, were examined for damage such as dents or tears in the packaging.

⁴ For more information on this methodology, please consult Appendix B. A caution is in order in interpreting the results of this analysis. For some store types, some items could not be priced in many stores, and thus provided a tenuous basis for inferring the retailer population. That is particularly true for certain combinations of food items and store types. Very few convenience stores in low-income areas sell fresh produce, for example.

⁵ The requirements generally corresponded to the weekly at-home needs of 10 four-person households, as determined by the results of the 1987–88 Nationwide Food Consumption Survey. A poor response rate for that survey raised concerns over many of the estimates. Although subsequent work has alleviated some of the concerns, care must be exercised in the use of the data. More information on the approach is provided in in Appendix B.

⁶ Another measure of the depth of inventory for which information was collected is the store manager's estimate of the number of days of inventory the store commonly maintained for nonperishable food items. The measure offers insight into the volume of store inventory (on-shelf and back room) in relation to sales volume. It is therefore an indication of immediate availability in relation to sales. But the *need* for inventories that are immediately available is dependent on a store's access to its principal suppliers. A store that receives supplies from its warehouse on a daily basis requires a far smaller inventory than a store that is supplied weekly. Therefore, measures of shelf stock and restocking practices should not be interpreted in isolation, but in combination with other measures of store performance.

¹ U.S. Department of Agriculture, How to Buy Food for Economy and Quality: Recommendations of the United States Department of Agriculture (New York: Dover, 1975).

To summarize the procedure at each store, data collectors selected an item based on lowestprice considerations. They would then attempt to collect enough units (meeting quality standards) of that item from shelf stocks to satisfy the demands of 10 households. The number of units would represent the quantity available. The proportion of units that met quality standards provided a measure of quality. It must be noted that the quality measure reflects a purposeful selection process, in which the data collector attempted to avoid poor quality. Thus, the measure reflects whether there was sufficient high-quality food available, and not the extent of poor-quality food in the store.

When aggregated across products, those measures of quality and quantity were weighted to indicate their relative importance in the diets of low-income households. The resulting measures ranged from zero (that is, no availability or no quality) to ten (that is, enough availability to supply 10 households, all items of sufficient quality).

Intensive Site Analyses

Access to FSP retail stores is such a crucial issue that it was decided to focus on it closely by means of an intensive analysis in several market areas. The areas were selected on the basis of differences in such characteristics as level of urbanization, income level, cultural and ethnic context, and geography. The intensive site analyses were undertaken to provide a detailed perspective on access in selected communities ranging from highly urbanized areas to sparsely populated rural areas.

Five intensive sites were selected from the 40 areas serving as PSUs (Primary Sampling Units) for the retailer survey. The sites were selected to provide variety in level of urbanization, income, access to transportation, and demographics. Within the sites, we identified specific communities of interest. In Baltimore, Maryland, we focused on describing access within the inner city. Marion County and Dillon County, South Carolina, represent a rural area lying outside a Metropolitan Statistical Area (MSA). Kanawha County and Boone County represent two adjacent counties in the Appalachian Mountains—the former being part of the Charleston MSA, while the latter is a rural area outside the Charleston MSA. In New Mexico, Dona Ana County was selected as a small-city MSA, and Otero County and Lincoln County were selected as a sparsely populated non-MSA area. Finally, Los Angeles County provided three sites for the analysis. Southeast Los Angeles and Pasadena were selected as examples of urbanized communities, Palmdale was selected as an example of a small city surrounded by a rural area.

Data Sources

Data sources for this analysis include the Store Tracking and Redemption Subsystem (STARS) database, the 1990 Census, files on food stamp participants provided by the States or local social service departments, and information collected in a series of site visits.

 STARS—Data on authorized retailers were provided by the Food and Consumer Service (FCS) for 1988 through 1993. Those data reflect information provided by the retailers

during FSP authorization or reauthorization, including details on store type, location, and gross annual sales. Information on the monthly food stamp redemptions of all authorized stores during the period was also supplied.

- 1990 Census—Demographic information was extracted from a file provided by CACI.⁸ Those data provided a variety of population-based estimates for describing specific locations (as defined by ZIP Code area) within each site.
- Participant Files—State and local agencies administering the Food Stamp Program provided information on all households in the study area that were receiving benefits in February 1994. Information included the location of the participant household, benefits and issuances received, and characteristics of the household members.
- Intensive Site Visits—Each site was visited to obtain an understanding of problems with access to food in the area. At each site, information was collected in interviews with persons involved in food access issues and from documents, reports, newspapers, and other sources.

Methods

Analysis of retailer access in the five intensive areas involved two distinct approaches. First, addresses provided by STARS and from participant files were used to map retailers and participant households within the intensive areas by means of Geographic Information System (GIS) technology. Although most participants and retailers were mapped in all five areas, locating some participants was problematic (for example, when the only address available was a rural delivery route). The geocoding resulted in a set of maps that displayed the locations of retailers and recipients each of the areas. The geocoded data set was also used to calculate distances between FSP recipient households and retailers in the area.

The second approach, which complemented the geocoding, provided a more detailed statistical view of each of the sites. Combining the retailer database with Census demographics allowed ZIP Code areas within each site to be compared with respect to retailer density, redemptions, and food stamp issuances to participants. Comparing redemptions and issuances within an area produces a rough measure of whether the area is underserved or well served. In other words, under the assumption that shoppers will purchase food from a local retailer—provided its foods are attractively priced, meet a certain standard of quality, and offer the variety needed for a nutritious diet—redemptions in an area will be roughly comparable to issuances. The need to travel outside one's community to shop is likely to reflect shoppers' inability to satisfy their food shopping needs locally and thus leads to a lower ratio of redemption issuances.

31

⁸ CACI, The Sourcebook of ZIP Code Demographics: Census Edition (Arlington, Virginia, 1992).

National ZIP Code Area Analysis

The third component in this study entailed an analysis of all retailers authorized to redeem food stamps. They were geographically coded by ZIP Code and linked to information on demographics and other community characteristics so as to reveal differences in retailer service levels between communities.

Data Sources and File Construction

Data used for this analysis include STARS and the 1990 Census. FCS provided STARS data on authorized retailers in the program during 1993. Information on retailers' ZIP Code area, store type (or format), gross sales, and redemptions was provided for 201,831 retailers. This dataset was processed so as to eliminate military commissaries, because they serve a particular population and are generally closed to the public. Retailers located in Alaska, Hawaii, Puerto Rico, and the territories were also eliminated, because they are viewed as representing unusual problems of access. The remaining 199,401 retailers were used for this analysis. Those data were summarized to provide the number of stores and redemptions for each of the seven store types by ZIP Code area.

Data collected by the 1990 Census (STF3A) were obtained from CACI via its ZIP Code Sourcebook.⁹ The Sourcebook provides an extensive collection of demographics on data provided by the Census files useful for describing communities in the analyses. In total, there were 29,073 ZIP Codes identified from the CACI materials. Those ZIP Code areas included only locations classified as residential by CACI.

The two files were matched on the basis of ZIP Code information. Approximately 7,000 retailers could not be matched. Retailers were unmatched for a variety of reasons, including the retailer's specification of a nonresidential ZIP Code (for example, a shopping mall that has its own ZIP Code), and errors of transcription or typing. Each of the unmatched retailers was identified with an existing CACI ZIP Code by means of a "nearest ZIP Code" matching algorithm. Retailers still not matched to CACI ZIP Codes, because latitude or longitude of the retailer or the CACI-provided ZIP Code could not be determined identified, were manually matched to existing areas. The ZIP Code directories and supplemental materials provided by CACI were used to resolve problems of non-matching. All of the retailers' locations were successfully associated with some residential ZIP Code.

The resulting data file consisted of 29,073 records containing information about the distribution of retailers and demographics within CACI-identified residential areas. In the aggregate, the data file provides a basis for addressing questions concerning access.

⁹ CACI, The Sourcebook of ZIP Code Demographics: Census Edition (Arlington, Virginia, 1992).

Methods

We used ZIP Code area as the unit of analysis, to enable us to focus on the number of stores within an area, and its demographics. Since the distribution of stores is dependent on many factors—including population, the size of the geographic area, urbanization, poverty level, and supply and demand factors—we used regression analysis to address questions related to retailers' location and distribution.

The distribution of retailers is very much skewed toward the lower range of the distribution. Of the 29,073 ZIP Codes used in the analysis, approximately 16 percent had no retailers at all, and almost two-thirds had no supermarkets. To adjust for that problem, we utilized Poisson regression procedures to provide the estimates in the multivariate analyses. To control for differences in ZIP Code areas, we used population and the geographic size of the area throughout the analysis.

Analytic Decisions Concerning Store Type and Location

Throughout the rest of this study, store type and location are critical elements in the analysis. The FSP officially recognizes 20 types of retail outlets. FSP-authorized retailers, when applying or reapplying for reauthorization, self-declare their store type. In general, industry definitions provide a basis for those self-declarations. Data from the retailers characteristics survey indicated that self-declarations are consistent with information supplied on site by the retailers and with the independent judgments of data collectors as they assessed the store.¹⁰

We introduced one change to the FSP store type categories; stores identifying themselves as groceries with gross sales of \$2 million or more we reclassified as supermarkets, and supermarkets with gross sales of less than \$2 million were reclassified as groceries. In the analysis, we reduced the set of store types to be investigated to seven:

- supermarkets—groceries with gross sales of over \$2 million
- large groceries—groceries with sales of between \$500,000 and \$2 million
- small groceries—groceries with sales of less than \$500,000
- convenience stores—limited-line food stores
- grocery/gas outlets—limited-line food stores selling gasoline
- specialty stores—retailers specializing in one or two types of products
- other stores—any other store eligible for FSP authorization.

11-11

¹⁰ For instance, about 90 percent of stores that defined themselves as being convenience stores were identified as such by our data collectors or by the store managers they interviewed. Another 6 percent were identified as grocery stores. About 83 percent of the self-identified supermarkets were identified as either a supermarket or a grocery store by data collectors and 81 percent were so identified by store managers.

A second factor relates to location—as specified by the urbanization and poverty level of the area. Urbanization level is a measure derived from the ratio of population identified as living in an urban area to the total population of the ZIP Code area. The measure ranges from zero to 100 percent. In our analyses, we defined three urbanization levels: (1) *urban*, which is defined as containing an urban population of 90 percent or more, (2) *mixed*, which is defined as having an urban population ranging from 10 percent to 90 percent of the total population, and (3) *rural*, which was defined as having an urban population of less than 10 percent of the total population.

Poverty level was generally subdivided into the following areas:

- High poverty—20 percent or more of the households were below the poverty line
- Other areas— less than 20 percent of households were below the poverty line.

That categorization identifies high-poverty areas as the top quantile of ZIP Code areas on the basis of poverty level, and is consistent with the definitions used by HUD in identifying economically distressed areas for inclusion in its Empowerment Zone/Enterprise Community Program.¹¹

11-12

¹¹ Enterprise Zones, in order to be eligible for inclusion in the HUD Enterprise Zone/Empowerment Community program, must have a poverty rate of 20 percent in each Census tract, or 25 percent in at least 90 percent of the Census tracts, or 35 percent in at least 50 percent of the Census tracts. The 20 percent threshold is consistent with the level used for this analysis. It must be pointed out, however, that the units of geography differ. Over the wider area of a ZIP Code, it is more difficult to achieve as high a poverty rate as in Census tracts.

Store Type and Access to Food

35
Grocery retailing has undergone a revolution over the last few decades. Economies of scale have led to fewer—and larger—full-line grocery stores. At the same time, opportunities have arisen for smaller, more specialized stores for satisfying consumers' demands for greater convenience or more specialized selections of foods. Thus we see how a food retailing industry of extreme diversity has evolved.

The implications of those changes for low-income households, however, are not clear. The conflicting evidence of research findings fails to establish whether low-income households have been disadvantaged by reduced access, reduced variety, diminished quality, and higher prices.

In the analysis that follows, a nationally representative sample of retailers authorized by the Food Stamp Program (FSP) is examined on the basis of the variety, availability, quality and cost of the foods they sell and on the extent to which retailers offer full-service departments and provide nonfood products. For each of those characteristics, we made comparisons between seven store types: supermarkets, large groceries, small groceries, specialty food stores, convenience stores, combination grocery/gas stations, and "other stores."

A basic assumption is that supermarkets are viewed as attractive places to shop for variety, availability, quality, and price. Therefore, in the analyses that follow, our key question is this: How well do nonsupermarket retailers approximate supermarkets on each of the measures?

Variety

Variety in the foods offered for sale by a retailer can have important implications for the consumer. For example, stores that offer a full range of foods may save shoppers time and costs by offering them the convenience of filling their household food needs in one stop.

Since stores that offer a wide variety of foods usually operate on a larger scale, they can take advantage of economies of scale to sell at lower prices. However, there are tradeoffs between offering variety and maintaining efficiency. There is evidence that stores (such as food warehouses) operating on a large scale and offering a more limited variety of foods operate at the lowest per-unit cost. We therefore expect to find that supermarkets will provide the highest level of variety of all the stores we examine. An important focus of this analysis is whether any of the nonsupermarket store types can provide consumers with a range of shopping options over a wide variety of food categories.

¹ These seven categories were constructed from store type information supplied by retailers when they applied or reapplied for authorization. The store types represent the major categories of retailers participating in the FSP.

Measures of Variety

In this analysis, variety is measured according to four characteristics:

- **Brands.** Variety in brands has significant implications for price and product quality. A principal reason food retailers offer more than one brand is to provide the consumer with options in price and quality. When a house brand is among those offered—as it frequently is when a store stocks two or more brands of a given product—the consumer is effectively being given an opportunity to pay a lower price for an unadvertised product that is less dependent on brand for its reputation and future sales. Recent years have seen an ever-increasing percentage of food sales accounted for by house brands among all consumers.²
 - **Packaging.** Foods are increasingly offered in a wide assortment of packages and sizes. Differences in packaging and size range from individual-serving sizes to large, economy-size containers that are now found in larger food stores, especially in the "warehouse-type" outlets. Packaging also affects ways in which products are sold and priced (for example, six-packs of soft drinks versus single bottles) and on user-friendly packaging (for example, the use of handles on bottles). Variety in the size of packaging provides larger households the opportunity to save money by buying larger-size containers, while giving 1- and 2-person households a chance to buy smaller containers and avoid waste from buying more than they can use. Convenience of use and ease of transport are other considerations related to package size.
 - Assortment. Foods as they are offered to the consumer may be differentiated by factors unique to a given food or category of foods, such as different varieties of apples or pears, or a range of cuts (and/or grades) of beef or other fresh meat products. Such differences are commonly found among perishable products that are sold unbranded (e.g., fresh meats, poultry, seafood, and produce). Differences in kinds of canned peaches (e.g., sliced or halves) or ice cream flavors also contribute to variety. To a large extent this measure reflects a "catchall" category for expressing the extent of product diversity, outside of brand and packaging, within a particular product line. While it does not describe the specific characteristics of this diversity, it does at the very least show that alternatives are available in the store.

31

² "Shoot Out at the Check-Out," *The Economist* (June 5, 1993), pp. 69-70; "Shoppers Bagging More Store Brands," *Food Institute Report* (April 19, 1993), p. 2; "Private Label Cereal Growth Continues," *Food Institute Report* (July 26, 1993), p. 6; "Supermarket Private Label Growth Continues," *Food Institute Report* (September 27, 1993), p. 7; "Private Label on the Rise as Consumers Cut Spending," *Milling and Baking News* (May 4, 1993), p. 1.

Forms. The form in which food is sold affects the method of storage in the household, the costs of storage, the possibility of perishability and potential waste, and the extent of labor and skill required for preparation. For example, foods available in fresh form require greater care in storage and more time and skill for preparation compared to the same foods sold in processed or prepared forms. Frozen foods require adequate freezer capacity. Thus, a wider variety of product forms provides consumers with greater flexibility in adapting food purchases to their individual needs and circumstances.

For this analysis, four forms of food were considered: fresh/refrigerated, frozen, dried, and canned/bottled. Most foods are available in food stores in at least two forms, and frequently in three or four. For example, meats and poultry are generally found in fresh, frozen, canned, and (sometimes) dried forms, depending on the particular item. The consumer can generally buy fruits and vegetables in four different forms—fresh, canned, frozen, and dried. Milk is generally available in fresh, canned, and dried (powdered) forms.

Besides these measures, we are also interested in the extent to which retailers offer foods across the food groups listed in Table III-1, as well as the extent to which they offer individual items within each group. Since food items were selected for the study on the basis of their sales volume within each food group, it was considered likely that conventional supermarkets would offer all or nearly all the items, smaller stores would offer something less than the entire market basket, and most specialized food stores would offer only a portion of the entire market basket.

Food Groups Represented in the Market Basket					
Fresh meat Processed meats Fresh poultry Fresh seafood Packaged meat Fresh produce Packaged produce	Dairy products Eggs Cereals and grains Bakery products Dinner mixtures Other foods				

Findings With Regard to Variety

Within the extensive body of information collected about the variety of foods offered by FSP retailers, there are many potential themes that could be examined. For the purposes of this analysis, we will limit our attention to themes running throughout the data that have particular relevance to FSP operations. A full set of tables relating to variety measures is presented in Appendix C.

Variety in brands, package types, assortment, and form indicate the existence of four distinct categories of stores (Figure III-1). Of the seven store types examined, supermarkets consistently offer the greatest variety of foods by a wide margin, regardless of the measure used. A second category of stores includes large groceries (grocery stores with \$500,000 to \$2 million in sales). Those stores provide about 75 percent of the brands, package types, and assortment, and 90 percent of the forms that supermarkets supply. A third tier consists of small groceries, convenience stores, and grocery/gas stations. Those stores supply only 40 percent of the variety in brands, package types, and assortment, and approximately 70 percent of the forms found in supermarkets. Finally, specialty stores and the catchall "other" category, as expected, have very limited variety.

Supermarkets and large groceries are the only store types to provide a full line of foods consistently. In examining variety, it is also critical to assess the extent to which stores can provide foods across the major food groups. Some stores, such as supermarkets, are expected to provide foods across all food categories. Other stores, by design, do not provide foods spanning all the major food groups and thus will do poorly on this measure. Figure III-2 shows the percentage of stores that can meet at least 50 percent of the total market needs in each of the major food groups, with the exception of fish. (Fish, as we will see, is offered to a significantly lower degree than other products and thus was not included in this measure.)

Among supermarkets, 91 percent of the stores met this requirement. Thus, about 9 percent of the supermarkets cannot meet this requirement. When examined more closely, the inability of most of these supermarkets to meet the requirement reflects the lack of fresh poultry products. Seven percent of these stores cannot provide 50 percent of the fresh poultry products specified in the market basket. In contrast to supermarkets, approximately 60 percent of the large groceries visited could supply at least 50 percent of the market basket across all product category groupings. That compares with 4 percent of small groceries, and less than 1 percent of the remaining types of stores with the exception of those in the "other" category.



Index of Variety, by Store Type and Attributes of Variety



Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997. Appendix C: Tables C.2-C.5.

Figure III-2

Percent of Stores Providing at Least 50 Percent of the Market Basket Across Major Food Groups, by Store Type



40

Availability and Quantity

The fact that some foods are often unavailable at authorized stores underscores the importance of availability. If food items are either not stocked or are temporarily out of stock, consumers' choices are limited. If no acceptable substitutes are available, return visits or trips to other stores might be necessary.

Measures of Availability and Quantity

Information was collected for four general indicators of food item availability:

- Product availability. Product availability was determined by the extent to which the market basket, weighted to reflect household expenditure patterns, was available within the store. The measure reflects the ability of the store to provide all the items in the market basket. This measure of availability is based on the more extensive market basket of 142 items, thus providing a greater opportunity for stores to demonstrate availability across product groupings.
- **Comparison with the "staple foods" requirement.** To qualify as a food store that is eligible to redeem food stamps, stores must meet certain requirements regarding the sale of "staple foods." Staple foods are foods that fall into one of four categories: meat, poultry, or fish; bread or cereals; vegetables or fruits; and dairy products. As of March 25, 1994, to qualify as a food stamp retailer, a store has to have at least half of gross sales in staple foods, or if less than half of gross sales are accounted for by staple foods, the store has to offer for sale, on a continuous basis, a wide variety of foods in each of the four staple foods, while eligible for food stamp purchases, are excluded from the staple foods category.³

Thus, to provide another indicator of availability, information was collected on the number of staple food categories offered (in both perishable and nonperishable forms), the percentage of total gross sales accounted for by the staple food categories, and the availability of certain specific staple food items. As in the case of product availability, the market basket of 142 items is used.

• Shelf inventory. Shelf inventory is measured by identifying the number of four-person households that could be served from shelf stocks. This measure provides an indication of the degree to which items are readily available to shoppers. This measure is based on the number of items passing standards of quality in the smaller, 42-item core market basket.

³ Coffee, tea, soft drinks, condiments, and spices are examples of foods excluded from the "staple food" category.

- Frequency of restocking. Food store managers were asked to indicate the frequency with which they restock their shelves, using the following categories:
 - All day, as needed
 - Certain items, as needed
 - Once a day
 - Less than daily, more than weekly
 - Once a week
 - Less than once a week.

Responses to this question, reported in the findings below, are indicative of the general volume of product turnover, and indirectly the frequency with which stores receive shipments from their suppliers.

Measures of shelf inventory should be interpreted with care. An inability to obtain a set number of items from shelf stock ignores shelf stocking practices. A retailer's shelf inventory is a function of several elements including (a) the volume of store sales, (b) the amount of shelf space available, and (c) the utilization of shelf space. The effectiveness with which stores utilize shelf space is often a key determinant of store profitability. Retailers can compensate for limited shelf inventory by frequent restocking. Thus, shelf inventory and frequency of restocking should be considered in combination.

Findings With Regard to Availability

Consistent with the findings on variety, the data show four levels of *product availability*. Not surprisingly, supermarkets rank higher in product availability than any of the other store types. On average, 95 percent of all foods included in the market basket are available in supermarkets. Large grocery stores follow closely behind supermarkets. They average 86 percent of the market basket available in supermarkets (Figure III.3).

Some distance behind, in terms of the product availability they offer, are combination grocery/gas stations, small grocery stores, and convenience stores. Overall, those store types offer about 58 percent of what supermarkets offer in relation to the market basket. As discussed below, those types of stores are far more likely to offer a limited set of food groups than other store types.

The types of stores that offer the least variety are the catchall "other" category and specialty stores, which, as their name suggests, offer specialized food lines. "Other" is a residual category that includes milk routes, bread routes, produce routes, drug stores, and other types of nonfood retail outlets that also sell some foods. On average, stores in this fourth group offer 23 to 32 percent of the foods offered by supermarkets.

Store Type and Access to Food

Chapter III.

Figure III-3





There are substantial variations in *availability of different types of food*. Some foods are typically available mostly in supermarkets and large groceries (Figure III.4). Fresh fish is generally not available at all in a large majority of the "other" stores. Fresh meat is unavailable in about half of the small groceries, and in three-fifths of specialty, convenience and grocery/gasoline outlets. Even large groceries cannot provide some products. For instance, fresh seafood of the type in our market basket is unavailable in 87 percent of the large groceries, and fresh poultry is unavailable in a quarter of the large groceries.⁴ With respect to supermarkets, fresh fish is available in only two-thirds of the stores. On the other hand, dairy and bakery products are widely available across most types of stores.

⁴ The market basket specified that any type of fresh fish (but not shellfish) could be counted as contributing toward variety.

Figure III-4

Availability of Market Basket Foods Within Specified Food Categories, by Store Type



44

N=2,378

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997, Appendix C: Table C.1.

Authorized Retailers' Characteristics and Access Study

111-9

When availability is measured in terms of access to *staple foods*, most store types rank high. Though all supermarkets offer all four staple food categories, so too, do at least 95 percent of all large and small grocery stores, combination grocery/gasoline stations, and convenience stores. Only in the case of specialty stores and "other" stores do a significant percentage fail to offer all four staple food categories—30 percent and 53 percent, respectively (Table III-2). And although a slightly smaller share of stores offers foods from at least three staple food categories in perishable form, the same general relationship holds. In other words, most staple foods (whether in perishable or nonperishable forms) are available from the vast majority of FSP authorized supermarkets, grocery stores, grocery/gasoline outlets, and convenience stores.

It is only when we ask whether all four staple food categories are available in perishable or fresh form that significant differences among the major store types become apparent. The percentage of convenience stores that can meet this more stringent test drops below half, and the percentage of both small grocery stores and grocery/gasoline outlets drops to less than two-thirds.

Grocery/gasoline stations are more likely to offer all four staple food categories than any other store type except supermarkets. A relatively high percentage of grocery/gasoline outlets also offer all four staple foods in fresh form—substantially higher than convenience stores, for example. That is probably because proportionately more of the grocery/gasoline stores are found in rural areas and therefore carry broad product lines. Because those stores tend to have broad product lines (including gasoline), staple foods account for a much smaller percentage of total sales in those stores than for any other store type.

Percentage of Stores by Sales of Staple Foods, by Store Type							
StareType	Parcent of storms offering all four staple food categories	Percent of stores with steple fixeds at least half of total sales	Percent of stores offering all four staple loads in perishable form				
Supermarkets	100%	94%	99%				
Large Groceries	98%	85%	91%				
Small Groceries	95%	81%	60%				
Convenience Stores	98%	47%	46%				
Grocery/Gasoline Stations	100%	28%	64%				
Specialty Stores	30%	95%	18%				
Other Stores	53%	72.5	30%				
All Stores	87%	68.4	58%				

45

When *depth of shelf stock* is examined, the superior availability of foods in supermarkets and—to a lesser extent—in large grocery stores, is more evident. The results presented in Figure III-5 indicate the average number of household market baskets that can be satisfied by each store type. Supermarkets are able, on average, to meet the needs of almost eight households through shelf stock only, and large groceries can meet the needs of six households. In comparison, small groceries, grocery/gasoline stores, and convenience stores are only able to meet the needs of about three households.

Specialty and other stores are restricted in the number of household market baskets they can fill because of the limited types of food they sell. For other store types, however, the low averages probably result more from limited shelf inventories and the relatively small volume of certain types of foods that are sold. To the extent that consumers buy relatively low-volume items from those stores, they usually do it for convenience rather than to fill the household's weekly at-home food needs. Whatever the reason, it is evident that small food stores do not fill the overall market basket needs of most consumers.

Restocking practices, in some cases, do not replenish shelf stock frequently. The frequency with which shelves are restocked appears to be largely a function of the volume of sales; the type of organization the store belongs to; and the availability of shelf space. Supermarkets restock most frequently, generally "all day, as needed" (Figure III-6). They are followed by large and small grocery stores, convenience stores, and grocery/gasoline combinations that most commonly restock weekly. Specialty and other stores, in contrast, tend to restock throughout the day, probably due to limited display space.

Fifty-nine percent of all stores surveyed could not meet the shelf availability test described above (enough items to satisfy the weekly needs of 10 households) on as many as one-third of the 42 items included in the market basket. Of this number, 46 percent restock their shelves no more often than every week. From another perspective, more than one quarter (27 percent) of all stores surveyed not only have limited shelf inventory availability at the time of the survey, but replenish their shelf inventory on a relatively infrequent basis. This pattern does not vary substantially by specific food item.

For instance, of stores that could supply less than 25 percent of the fresh dairy products specified (and eliminating those that could not supply any), only 21 percent stock more than once a day. The equivalent percentages for bakery and fresh meat products are 25 percent and 17 percent, respectively. Thus, in cases where lack of stock is apparent, many stores do not tend to refresh the supplies throughout the day. So shoppers using those stores may face shortages of specific items.

46

Store Type and Access to Food

Chapter III.

Figure III-5

Average Number of Households Served by Inventory Available in Stores, by Store Type



Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997, Appendix C: Table C.17.

Figure III-6





47

N=2,378 Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997, Appendix C: Table C.7

Authorized Retailers' Characteristics and Access Study

III-12

The existing staple food requirement does not appear to be exclusionary. Of the food stores for which information on staple foods was collected, only 1.6 percent are reported to have staple food sales that are less than half of total gross sales *and* to offer fewer than two staple foods in fresh form. This is a very small number, within the range of probable reporting error. Changing the requirement to at least *three* staple foods in perishable form when staple foods account for less than half of gross sales would eliminate only another 4.5 percent of the stores surveyed.

Quality

It is important that food items included in the measures of availability and variety discussed above meet or exceed minimum standards of acceptability. That is, for foods to be considered "available" to the consumer, they should be of acceptable quality. In a sense, this is a check on the relevance of the measures described in the previous sections. If a high incidence of foods of inferior quality is found among certain stores, it will affect the other findings on availability and variety.

Measures of Quality

Quality was measured by assessing the percentage of items within a product specification that met criteria of quality. It should be noted that because the data collectors attempted to select acceptable items, they did not focus on unacceptable items except when they could not meet their market basket needs. Therefore, the quality estimator does not measure the degree to which there is food of poor quality present, but the degree to which the typical consumer can avoid poor-quality food.

Findings With Regard to Quality

A high level of product acceptability is found throughout the sample. Overall, only about 2 percent of the foods examined are found to be of unacceptable quality. No consistent differences in quality are found to be related to store types. Overall, the findings suggest that shoppers can generally avoid poor-quality food (Figure III-7).

Although the mean level of quality is high, many stores fail to completely fill the market basket with high-quality items, and sometimes were dramatically short of doing so (Figure III-8). It must be noted that quality was measured over enough items to constitute a market basket for 10 households, or if this quantity was not available, on the totality of items available. Thus, for some stores, data collectors were "scraping the bottom" of the barrel to meet quantity requirements and might be expected to encounter items not meeting the quality standard. Therefore, when we find that about a two-thirds of the supermarkets could not fill the entire market basket with items of acceptable quality, it may be because it is difficult for those stores



N=2,378

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997, Appendix C: Table C.6

Figure III-8



Percent of Stores With Given Quality Levels, by Store Type

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

N=2,378

to fill the market basket of 10 households without encountering some items that do not meet quality standards. In fact, nearly all of the supermarkets (99.75 percent) can fill the 90 percent of the market baskets of 10 households with foods meeting standards of quality. On the other hand, small groceries and stores in the "other" category are most notable in not being able to fill the market basket with quality foods. For small groceries, 7 percent of the stores are unable to fill 90 percent of the market basket with quality foods. The comparative figure for "other" stores is 10 percent. Thus, there are relatively few stores that cannot provide quality foods and those stores are likely to be smaller stores.

To the extent that foods of inferior quality are found, they are primarily among fresh produce, meats, and poultry. Of the 12 food categories examined, fresh produce has the highest overall incidence of poor quality, with 8 percent of that product considered to be of unacceptable quality (Table III-3). The incidence of inferior quality among produce items is found to be relatively uniform across most store types, although slightly higher among small groceries and grocery/gas combinations and less in supermarkets. Again, on a product-by- product basis, we find that some stores fail to provide enough items of sufficient quality to satisfy the requirements of 10 households. In a minority of cases, for instance, it was found that some stores could not provide any items that met standards of quality for fresh meat (4 percent of the large groceries), or fresh produce (3 percent of small groceries and specialty stores).

Found To B	of Unacceptable C by Store Type	nality,
tore Type'	No. of Cases	Percent
upermarkets	367	3%
arge Groceries	142	8%
imall Groceries	300	14%
Convenience Stores	229	9%
Grocery/Gas Outlets	123	12%
pecialty Stores	40	8%
When Stores	135	6%
All Stores	1,336	8%
. Since some stores do not nformation is smaller than the N=2,378 Source: Authorized Food Ref	sell fresh produce, the sa a overall sample size. tailer Characteristics Stud	mple size for this by, February 1997,

Cost

Since food stamp coupons are provided to program participants in the form of a monthly lumpsum dollar amount, the amount of food that can be purchased with these coupons is ultimately determined by the price of the foods that are purchased. The purpose of the analysis reported in this section is to compare the cost of a standardized market basket across different types of stores.

Measures of Cost

A market basket of 42 items representing all major food categories was used for collecting price information. Within each category, individual food items were selected on the basis of the item's prominence in consumer food purchases, as reported by the U.S. Department of Agriculture and trade publications such as Supermarket Business. For example, fresh beef is represented in the market basket by ground beef; fresh fruits are represented by apples, bananas, and oranges. Although the number of items in the market basket is relatively small, collectively those foods represent approximately one-third of the total value of consumer food purchases.

Each individual food item in the market basket is assigned a weight based on the average annual per capita pounds of the item consumed by individuals in the lowest income quintile of the household portion of the 1987/88 Nationwide Food Consumption Survey. By applying the per pound price of each item included in the market basket to the number of pounds of the item consumed annually, it is possible to calculate the annual cost of each item in the market basket.⁵

In the exhibits relating to price, information is presented on the annual market basket cost in relation to the cost in supermarkets and on the overall percentage of stores contributing to the cost estimate. Thus, we establish a cost index with supermarkets equaling 100. Costs in other store types are relative to those found in supermarkets and can be expressed as a percentage of costs in supermarkets. We call this measure "store-based cost," since it assumes that shoppers are equally likely to use any store in the sample.

Another measure that we present is a redemption-based cost. This cost is weighted by food stamp redemptions and therefore incorporates the purchase patterns of food stamp recipients. Whereas the store-based costs reflect what is offered in stores authorized by the

51

⁵ The use of annual costs are a matter of convenience. Since the weights are provided in terms of the annual per capita consumption for a family of four, costs are maintained in this form. It should be noted, however, that the annual costs cannot be used for establishing an actual market basket cost, since the items contained in the market basket are a very selective set of items that normally constitute a family's purchase.

Food Stamp Program, redemption-based costs reflect the expenditures of food stamp recipients in the stores in which they shop.

With the exception of fresh seafood, which was frequently not available across all store types, product categories were priced in 80 percent or more of all the supermarkets and large grocery stores surveyed. Each of the remaining store types was poorly represented in one or more product categories. Nearly 80 percent of the small grocery stores in the sample did not have fresh meat and poultry items that could be priced. The majority of convenience stores and grocery/gasoline combination stores did not offer fresh produce, fresh meats, or poultry. Not surprisingly, the majority of specialty stores could not be priced for most product categories, since that store type represents a collection of specialized outlets. For example, the 20 percent of the specialty stores for which prices of fresh produce were collected most likely represents the fruit-and-vegetable stores and produce stands in the sample, while the 33 percent of the specialty stores for which fresh meats and poultry were priced are probably butcher shops and meat markets.

Findings With Regard to Cost

The average market basket cost, across all stores, is \$1,133. This average ranged from a low of \$871 in supermarkets to a high of almost \$1,200 in convenience stores. Aggregating across all product categories, the average store-based cost of market baskets purchased in supermarkets was found to be far lower than the average cost in any other store type (Figure III-9).⁶ Large grocery stores came closest, with an average cost for the entire market basket 15 percent above that of supermarkets. The average cost for other store types ranged from 33 to 54 percent above the average cost in supermarkets.

When redemptions are considered, overall costs are lower, regardless of store category. In Figure III-9, we find that redemption-based costs are 4 percent lower in the supermarkets that participants actually shop in than in all supermarkets authorized for the program. The reduction varies from store to store but is largest in the case of specialty and "other" stores.

62

⁶ The figure includes estimates from stores that provide any item in the product category. Figure III-13, presented as an addendum to this chapter, presents estimates reflecting prices in those stores that provide all items in a product category.

Figure III-9



Average Indexed Cost of the Market Basket, by Store Type

N=2,378

Source: Authorized Food Retailer Characteristics Study, February 1997, Appendix C: Table C.10.

A comparison of the cost of individual food categories (e.g., fresh produce or bakery products) shows that the cost is consistently lower for supermarkets across all categories, although the magnitude varies.⁷ Market basket costs and availability by product category and store type are compared in Figure III-10. It is important to note that when store-based costs are considered, the smallest cost differentials between supermarkets and other store types tend to be for fresh meat, fresh produce, and dairy products; the largest differentials tend to be for packaged or processed products. This finding tends to become more pronounced when redemption-based costs are examined. In fact, some categories show little or no difference in costs between supermarkets and some other types of stores. To illustrate, the redemption-based cost in large groceries, specialty stores, and other stores for fresh produce is the same or lower than that in supermarkets.

53

⁷ Fresh seafood is an exception, although the small sample size for most store types casts doubt on the statistical reliability of the estimates.

Figure III-10







54

N= 2,378

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

Authorized Retailers' Characteristics and Access Study

III-19

Figure III-10

Costs for Specified Food Groups, by Store Type (Darker Bars are Costs and Lighter Bars Represent Percent of Stores)





55

N= 2,378

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

Figure III-10

Costs for Specified Food Groups, by Store Type (Darker Bars are Costs and Lighter Bars Represent Percent of Stores)



Sb

N= 2,378 Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

Comparisons of the cost of individual products within product categories indicate that the magnitude of the cost advantage of supermarkets and large grocery stores varies somewhat among products (Table III-4). To some extent, the phenomenon appears to be dependent on the degree to which the product is commonly differentiated through the use of brands, although differences in the typical unit of sale (e.g., soft drinks sold by the can or bottle versus by the six-pack or the case) are probably also important.

A comparison of the average cost of a few products selected from the market basket illustrates the magnitude of the variation. The products listed in Table III-4 are selected for their relative uniformity. A supplementary graph is presented in Figure III-11, which provides cost information on items representing particular product groupings. Each item selected is the most frequently found product within that product grouping across all stores. For each of those products, supermarkets are lowest in cost, followed by large grocery stores. Three of the products—fresh whole milk, large fresh eggs, and granulated sugar—are highly standardized. Although they are often sold under a brand name, their respective standards of identity and/or grade do not permit much variation in the nature of the product.

For fresh whole milk, the difference in cost between supermarkets and the highest-cost store type ("other" stores) is only 12 percent. However, for the overall market basket, there is a difference of 48 percent between supermarkets and the highest-cost store type (convenience stores). For large fresh eggs, the difference (21 percent) between the two types of store is somewhat larger, although still less than half that for the overall market basket. For sugar, however, another product for which there is a high degree of product uniformity, there was a wide range in average cost among store types. The cost of sugar in convenience stores is 67 percent above the cost in supermarkets.

Average Indexed Cost of 2 elected Products in Relation to Average Cost in Supermarkets, by Store Type								
Product Category	Supermarkets	Large Grocories	Small Groceries	Convenience Stores	Grocery/ Gas Stores	Specially Stores	Other Stores	
Fresh whole milk	100	103	108	108	105	111	112	
Fresh bread	100	119	162	138	142	135	142	
Large fresh eggs	100	105	116	121	116	116	121	
Cola/soft drinks	100	129	158	154	146	246	183	
M&M-type candy	100	129	171	164	164.	179	143	
Ground coffee	100	125	167	175	167	225	158	
Granulated sugar	100	108	142	167	158	142	158	
Total	100	113	134	133	129	148	136	

57



Figure III-11



Costs for Specified Food Items, by Store Type







N=2,378

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997. Appendix C: Table C.10.

58

Authorized Retailers' Characteristics and Access Study

III-23

Although supermarkets are the lowest-cost store type for all seven products compared in Table III-4, and large grocery stores are the next lowest, costs vary among the remaining store types depending on the product. For example, excluding supermarkets and large grocery stores, fresh milk was cheapest in grocery/gasoline stores, although fresh bread was cheapest when purchased from specialty stores.

If shoppers were to selectively purchase this abbreviated market basket from the store types that were lowest in cost for the particular food, the cost advantage of the larger stores would decline marginally. Compared to a cost advantage for supermarkets of 29 to 48 percent if all seven items were to be purchased in one of the other store types, outside of large groceries, the advantage would drop to 25 percent. In other words, if consumers were willing to shop among several store types in search of the lowest price for each item, they could narrow the cost advantage of supermarkets, but not eliminate it. Of course, that would require the additional time and expense on the part of shoppers willing to do this.

Full Service Departments and Nonfood Product Lines

Many food stores offer their customers a range of services beyond those offered as part of a conventional self-serve grocery store. Though a service meat counter has been part of the traditional configuration of a grocery store for many years, other types of services have now become commonplace, particularly among larger food stores. As the term implies, a service department is staffed for purposes of assisting the customer in filling individual orders. Besides service meat departments, there are now service delicatessens, service bakeries, service seafood departments, service pharmacies, and so on.

Food stores have also become outlets for a broad range of nonfood products. While general stores in sparsely populated areas have sold a broad combination of food and nonfood merchandise for many years, this format is relatively recent in urban areas. Increasingly, stores that sell food also sell such products as gasoline, automotive products, housewares, stationery, pharmaceuticals, and clothing.

At the same time that some food stores have begun expanding their product lines into nonfood items, nonfood stores have begun moving in the opposite direction. Drug stores, gasoline stations, and discount stores are prominent examples of nonfood stores that now look to food sales for a portion of their sales volume.

The number of full-service departments is determined by size and store service orientation. Supermarkets offer the largest average number of full-service departments (3.0), followed by large grocery stores (1.3), and specialty stores (1.0). The reduced incidence of full-service departments according to size, from supermarkets, to large grocery stores, to small grocery stores, is evident in Figure III-12. Specialty stores are usually designed to provide full service for a particular type of

111-24

59





Average Number of Full-Service Departments and Nonfood Product Lines, by Store Type

N=2,378 Source: Authorized Food Retailer Characteristics Study, February 1997, Appendix C: Tables C.15-C.16

food, as indicated by the fact that these stores provide a single full service. Convenience stores and grocery/gasoline combinations, on the other hand, are usually designed around the labor efficiencies of a small staff and maximum self-service by store customers. This is reflected in the limited extent to which they offer full service.

The forms of full service provided is determined largely by type of store. Among supermarkets and large grocery stores, full-service meat departments are most prominent, followed by delicatessens. Full-service deli departments are most prominent among small grocery stores, convenience stores, grocery/gas combinations, and the "other" category. Pharmacies are nearly nonexistent outside supermarkets and certain other stores (almost always, drugstores).

A broad range of nonfood items is offered in most types of stores. Although supermarkets offer more lines of nonfood products than any other store type, they are followed closely by grocery/gasoline combinations, convenience stores, and large grocery stores (Figure III-12). Of course the variety of merchandise that is offered *within* those nonfood product lines could be expected to vary substantially by store type. The nonfood items most likely to be found in food stores were: housewares products (82 percent of all food stores), tobacco products (81 percent), pet foods (77 percent), pharmaceutical items (70 percent), and motor oil (65 percent).

60

Additional Cost Estimates Based on Stores Having All Items in a Product Category

The following exhibit presents cost information if only all of the items were available in the market basket. This is a very restrictive definition of cost since few stores could provide the entire market basket. These data should provide some additional perspective on cost presented in this and subsequent chapters.

42









Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997 Appnedix C: Table 10, N=2,378

Authorized Retailers' Characteristics and Access Study

III-27

Figures III-13







64

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997 Appnedix C: Table 10, N=2,378

Chapter IV

Retailer Availability and Mix: A National Perspective

65

Chapter IV.

In recent years, a number of community-based initiatives have sought to increase the availability and lower the cost of foods by creating opportunities for chain supermarkets to locate near urban, low-income populations. The assumption underlying these efforts is that supermarket chains—by offering economies of scale—provide opportunities for shoppers living in the nearby communities to make better use of their food dollars.

As was observed in Chapter III, the availability of a supermarket is important for presenting shoppers with the full range of foods, and the availability of several supermarkets can create price competition and thus advantages for consumers. However, other types of stores may contribute to the overall opportunities that an area can provide. Large groceries were found to provide a full range of high-quality foods at prices—although somewhat above those in supermarkets—closer to those of supermarkets than to the significantly higher prices offered at other types of stores. Smaller stores may sell foods that cater to ethnic tastes, meet specific dietary needs, or provide a desired shopping experience. For instance, convenience stores can provide easy access to a limited set of food items, while farmers' markets may provide access to fresh foods at discounted prices. The presence of various store types provides more options for local shoppers. Retailer mix tells us about the kinds of stores available within an area, and thus the options for shoppers.

Another perspective is that of retailer availability, which addresses the degree to which participants have access to a store that can fill their market baskets at reasonable prices. In this regard, analysis of the overall availability of supermarkets and large groceries is important in that these stores are the most likely to provide the means for shoppers to meet most of their food needs. However, in other areas, the availability of other smaller outlets may provide the major source of food within the community.

The Food Stamp Program (FSP) currently authorizes approximately 200,000 retailers to accept and redeem food stamps from participant households. These retailers are located in all 50 States, the District of Columbia, and the territories. They range from very large warehouse stores to small informal buying clubs, and vary considerably in the variety of foods they sell and the services they provide.

The focus of this chapter is to describe the distribution of authorized retailers with regard to their proximity to low-income populations and to identify characteristics associated with lower levels of retailer availability and mix. The analysis in this section is national (the continental United States) in scope, and involves the use of an administrative database containing retailers authorized by the FSP in 1993. The examination describes conditions within ZIP Code areas, which are reasonably sized areas for describing retailer access, and can easily be matched with Census demographic and FSP retailer data, thus presenting an access profile of the community. Thus, we examine the density of retailers and community characteristics as these measures vary from one ZIP Code area to the next.

Food Retailer Availability

The availability of authorized retailers to individuals in a community is quite variable. In Table IV-1, information is provided on the number of ZIP Code areas by the number of authorized stores within their boundaries. The data indicate that 84 percent of the ZIP Code areas contain at least one food store authorized to redeem food stamps, and just over half (52 percent) of areas studied are served by three stores or more. It should also be noted that about 16 percent of the ZIP Code areas contain no authorized retailers.

Must be at Sterming in Area	Distribution of ZIP Code Areas		
Number of Stores in Area	No,	Pet.	
No Stores	4,778	16.4%	
One Store	5,328	18.3%	
Two Stores	3,899	13.4%	
Three Stores	2,644	9.1%	
Four Stores	1,878	6.5%	
Five to Nine Stores	4,637	16.0%	
Ten or More Stores	5,909	20.3%	
All Areas	29,073	100.0%	
Number of Stores	1	99,401*	

Source: Authorized Food Retailer Characteristics Study, February 1997.

Supermarkets account for 30,400 stores, or one-sixth of all authorized stores. As seen in Table IV-2, about two-fifths of the ZIP Code areas have at least one supermarket, and two-fifths of those only have one supermarket within their boundaries. To get a sense for how other types of stores share market areas with supermarkets, we calculated the percentage of areas identified as containing a large grocery store or another authorized store by the number of supermarkets available. The data show that 23 percent of the 17,105 areas without supermarkets have a large grocery and 67 percent contain a smaller store. Also, areas having a larger number of supermarkets are also more likely to be served by other types of stores, regardless of store type. That result probably relates to the store concentration associated with urbanization and high levels of population density.

Supermarket Availability, and Retailer Mix in the Presence of Supermarkets								
Number of	Supermarket /	Availability	Retailer	Retailer Mix:				
Supermarkets	Number of Areas	Percentage of Area	Percentage of Areas With Large Groceries	Percentage of Areas With Other Stores*				
0	17,105	58.8%	22.8%	66.5%				
1	4,741	16.3%	31.6%	87.7%				
2	2,863	9.8%	36.9%	94.7%				
3	1,622	5.6%	41.3%	96.1%				
4 or more	2,742	9.5%	57.5%	99.2%				
Total	29,073	100.0%						

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

Focusing on supermarkets, as we did in Table IV-2, gives a restrictive view of retailer mix and does not take into account the role of larger grocery stores in meeting the food shopping needs of the population. In Table IV-3, we examine the mix of stores from the perspective of large stores (supermarkets and large groceries). In all, 55 percent of the ZIP Code areas in the continental United States have a larger store. Sixty-four percent of the ZIP Code areas that lack large stores contain other retailers. With the increasing number of large stores, there is also an increase in the probability that a smaller store will also exist in the area.

Retailer Mix in the Presence of a Large Store - (Supermarkets or Large Grocery Stores)							
Number of Large Stores	Number. of Areas	Percentage of Areas	Percentage of Areas With Another Type of Store				
0	13,197	45.4%	63.8%				
1	6,539	22.5%	79.5%				
2	3,494	12.0%	90.4%				
3	1,947	6.7%	95.9%				
4	3,896	13.4%	99.3%				
Total	29,073	100.0%					

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

Chapter IV.

A summary of retailer presence is provided in Table IV-4, which displays the distribution of ZIP Code areas by the stores that serve the area. Approximately 16 percent of the ZIP Code areas are served by a combination of supermarkets, large grocery stores, and smaller stores, while another 16 percent contain no authorized store of any type. It is notable that approximately 29 percent of the areas that are not served by either an authorized supermarket or a large grocery store are nevertheless served by at least one smaller authorized store.

		Arees (Pi	with Retail incentages /	Are of All ZIF	by Type of S Code Areas	lore)		
		Served by S	Supermarke	1	Not Served by Supermarket			tet
	Served by Small Store		Lacks Small Store		Served by Small Store		Lacks Small Store	
	No.	PcL	No.	Pct	No.	Pct	No.	Pct.
Served by Large Grocery	4,676	16.1%	124	0.4%	2,950	10.2%	958	3.3%
Not Served by Large Grocery	6,469	22.2%	699	2.4%	8,419	29.0%	4,778	16.4%

As the tables above illustrate, retailer presence varies widely. Some further evidence on how this retailer mix changes is provided by an intensive investigation of market area sites ranging from central city areas in Los Angeles and Baltimore to very rural areas in south-central New Mexico.¹ In Los Angeles and Baltimore, we found a rich mix of retailers ranging from small corner produce stands and rolling routes to supermarkets. Baltimore is particularly interesting because food purchasing in the central city seemed to focus on smaller retailers. Instrumental in this pattern are the specialty retailers amassed at several large organized indoor markets. Table IV-5 presents the number of authorized retailers, their redemptions, and the market share of their food stamp redemptions that are accounted for by large stores in those two areas. In Baltimore, it is apparent that just over half (55 percent) of redemption trade is occurring at larger stores. The data for southeast Los Angeles provide a different picture, in which the larger stores redeem three-quarters of the food stamps.

Another perspective is offered by less urbanized areas. In northeast South Carolina, we investigated two largely rural counties that contain several small population centers of approximately 5,000 persons each (Dillon, Marion, and Mullins). Outside these population centers, there are a number of populated areas without supermarkets or large groceries, and one area that lacks any type of

¹ U.S. Department of Agriculture, Office of Analysis and Evaluation, Food and Consumer Service, Authorized Retailers Characteristics Study: Technical Report III, by R. Mantovani and J. Welsh (Washington, D.C., February 1996).

Characteristic	s and Retailers in E	Table IV-5 altimore and Southeast	Los Angeles Study	Areas	
	Supermarket	and Large Stores	All Ștores		
Area	Percentage of all Stores	Percentage of all Retiemptions	Number of Authorized Stores	Stores/1,000 FSP Households	
Baltimore Study Area	3.9%	55.2%	297	16.4	
Southeast Los Angeles Study Area	15.2%	76.3%	585	10.3	

Table IV-6 Retailer Distribution in the South Carolina Study Area							
	Super	markets	AI	_			
Study Areas	Percentage of All Stores in Study Area	Percentage of All Redemptions in Study Area	Number of Stores	Total Redemptions (\$)	1,000 FSP Household		
Dillon County	9.6%	75.8%	83	5,078,666	36.07		
Dillon	10.2 %	79.6%	49	4,082,058	35.03		
Floyd Dale	0.0%	0.0%	1	5,545	111.1		
Fork	0.0%	0.0%	1	115,895	41.67		
Hamer	0.0%	0.0%	6	70,953	56.60		
Lake View	33.3%	83.8%	6	320,486	31.58		
Latta	5.3%	68.6%	19	479,829	39.26		
Little Rock	0.0%	0.0%	0	0	NA		
Minturn	0.0%	0.0%	1	3,900	71.43		
Marion County	9.8%	64.9%	82	5,582,924	30.19		
Rains	0.0%	0.0%	1	30,995	18.18		
Sellers	0.0%	0.0%	2	454,881	19.80		
Marion	16.1%	85.9%	31	2,848,992	26.29		
Mullins	7.1%	60.7%	28	1,849,643	26.39		
Nicols	9.1%	20.1%	11	254,430	102.80		
Centenary	0.0%	0.0%	2	69,205	42.55		
Gresham	0.0%	0.0%	7	74,778	42.17		

Chapter IV.

authorized retailer (Table IV-6). Again, it should be noted that the information provided only shows retailers authorized by the FSP. As indicated in the introduction, the program covers nearly all full-line food retailers.

Similarly, in West Virginia, supermarkets or large grocery stores are largely found only in the population centers in the two-county region. In south-central New Mexico, a similar pattern is found, in that supermarkets or larger stores tend to be in the more highly populated areas, such as Las Cruces, Alamogordo, or Ruidoso. Some sparsely populated areas are served only by a smaller store; still other areas are not served by any store at all.

The examination of these results from particular geographic locations shows that store mix and presence reflects an area's level of urbanization. Highly urban areas with higher population densities can support larger stores and a greater number of stores. Smaller stores fill in and supplement those larger stores in rural areas. As the analysis of the South Carolina area showed, many rural areas seem to lack large retailers, while others seem to lack any sort of food retailer.

Retailer Availability and Level of Urbanization

Although roughly 80 percent of the population of the United States lives within a Metropolitan Statistical Area (MSA), less than 20 percent of the land area lies within MSAs. A majority of ZIP Code areas (56 percent) fall outside MSAs, which suggests that distinguishing between levels of urbanization may be critical for the analysis, especially given the predominance of lightly populated areas. We have therefore separated ZIP Codes into three categories on the basis of population figures provided in our data sets (Table IV-7). The categories are based on the following distinctions.

Urban areas—ZIP Code areas in which the population identified as urban equals or exceeds 90 percent of the population in the area. Those areas include central cities, portions of smaller cities, and some suburban areas. Of the 29,073 residential ZIP Codes defined for this study, 20 percent are classified as urban. Those areas account for 3 percent of the land area of the continental United States but for 56 percent of the population. Urban areas also account for 53 percent of the population under the poverty line.

Rural areas—ZIP Codes in which the population identified as urban is equal to 10 percent or less of the total population in the area. Rural areas generally lack a population center—or at best have a very small one consisting of a few thousand people. Rural areas cover 57 percent of all ZIP Code areas and almost two-thirds of the total area in the contiguous 48 States. Rural areas account for 12 percent of the population and 15 percent of the population living in poverty in the continental United States.

Mixed areas—ZIP Codes areas in which the urban population ranges from 10 to 90 percent. Mixed areas account for 23 percent of all ZIP Code areas, for a third of the land area of the continental United States, and for a third of the total population. They also contain about a third of the poor nationwide.
Retailer Availability and Mix

Chapter IV.

Distribu	tion of Geogra	phic Area, Te	otal U.S. Populatio	n, and Popula	tion in Poverty, i	oy Urbanizat	ion Level
Urbanization	Geograpi	ulo Area	Total Popu	lation	Population in	n Poverty	Poverty Rate
Level	Sq. Miles	Pct.	No.	Pct.	No.	Pct	PcL
Urban	95,624	3.2%	138,413,965	56.1%	15,807,137	52.8%	0.12
Rural	1,900,302	64.2%	30,529,862	12.4%	4,699,204	14.8%	0.15
Mixed	963,554	32.6%	77,843,780	31.5%	10,341,269	32.5%	0.13
Total	2,959,480	100.0%	246,787,607	100.0%	31,847,610	100.0%	0.13

Throughout this analysis, it should be noted that we are describing conditions in ZIP Code areas, many of which are limited in their geographical size but many of which compose whole counties. Across larger areas, such as counties, it is common to find urban, rural, and mixed areas adjoining one other. Exceptions are large central cities such as New York City, or very sparsely populated areas of the Southwest and the Mountain States. For example, in the Antelope Valley area of Los Angeles County, Lancaster and Palmdale are defining cities, each with a population of about 100,000. Although portions of those cities are defined as urban, other portions are what we called "mixed." Outside of the city limits, but close to Palmdale and Lancaster, are areas that are largely rural. In that context, our focus remains on access to retailers within ZIP Code areas, although many of the individuals along the borders of a ZIP Code area may have access to more urban or mixed areas.

Retailer mix is demonstrated across the three levels of urbanization in Table IV-8. Supermarkets and large groceries are present in both urban and rural areas, but supermarkets are more highly represented and large groceries less highly represented in urban areas than in rural areas. Almost half the authorized retailers are found in urban areas; about a fifth are located in rural areas.

Store mix, however, varies considerably. Supermarkets have a larger relative presence in urban and mixed areas than they do in rural areas, whereas large groceries have a larger presence in rural areas than they do in more urbanized areas.

Other stores show variations in contributing to the overall mix of retailers across the three urbanization categories. For instance, small groceries have a larger relative presence in urban and rural areas, whereas convenience stores have a larger relative presence in mixed and rural areas. Convenience stores and gas/grocery outlets have the largest representation, regardless of area.

	by SI	Nur tore Type an	Table nber and Pe id Urbanizat	rcent of Sto Ion Level of	res, Store's Loca	ition		
Store Type	Urbar	Areas	Mixed	Areas	Rural	Areas	Total	Areas
	No.	Pct	No.	Pct.	No.	Pct.	No.	Pct.
Supermarkets	14,876	15.6%	12,228	18.6%	3,296	8.6%	30,400	15.2%
Large Groceries	5,349	5.6%	3,675	5.6%	4,517	11.8%	13,541	6.8%
Subtotal: (Large Stores)	20,225	21.2%	15,903	24.2%	7,813	20.4%	43,941	22.0%
Small Groceries	22,978	24.1%	7,572	11.5%	7,492	19.6%	38,042	19.1%
Convenience Stores and Grocery/Gas Combinations	31,809	33.3%	28,557	43.4%	15,819	41.5%	76,185	38.2%
Specialty Stores	9,670	10.1%	5,650	8.6%	2,032	5.3%	17,352	8.7%
Other Retailers	10,725	11.3%	8,169	12.3%	4,987	13.2%	23,881	12.0%
All Retailers	95,407	100.0%	65,851	100.0%	38,143	100.0%	199,401	100.0%

Given that store mix varies across broad levels of urbanization, we can characterize the kinds of areas within each urbanization category by availability of stores (Table IV-9). Five classifications of availability are used, namely:

- More than one supermarket available in area
- One supermarket available in area
- At least one large grocery but no supermarkets available in area
- Smaller stores are available in area, but no large stores (supermarkets or large groceries)
- No authorized stores at all available in area.

In *urban areas*, 60 percent of ZIP Code areas have two or more supermarkets, and another 20 percent have just one supermarket. An additional 5 percent of ZIP Code areas contain a large grocery but no supermarket. About 95 percent of the U.S. population in urban areas is located in areas served by at least one supermarket or large grocery. A similar proportion of the population (96 percent) under poverty is found in these areas. On the other hand, 5 percent of the urban ZIP Code areas are not served by an authorized store. Those areas account for 1.4 percent of the total population and less than 1 percent of people below the poverty line in urban areas.

*

Distribu	tion of ZIP (Code Areas, T	Table IV-9 Intel Population, an	d Population L	lving in Poverty,	a da
Urbanization Level and	ZIP Co	de Areas	Total Pop	uintion	Population Livin	g in Poverty
Availability of Retailers	No.	PcL	No.	Pct	No.	Pct
			Urban			
2 Supermarkets or More	3,559	59.8%	108,614,577	78.5%	13,190,754	78.5%
1 Supermarket	1,215	20.4%	19,074,365	13.8%	2,218,138	13.2%
Large Grocery But No Supermarkets	270	4.5%	3,364,483	2.4%	711,600	4.2%
Smaller Stores But No Large Stores	561	9.8%	5,398,489	3.9%	556,925	3.3%
No Stores	322	5.4%	1,962,051	1.4%	129,720	0.8%
Total	5,947	100.0%	138,413,965	100.0%	16,807,137	100.0%
			Mixed			
2 Supermarkets or More	3,122	46.9%	57,107,355	73.4%	8,085,750	78.2%
1 Supermarket	1,473	22.1%	13,065,598	16.8%	1,448,395	14.0%
Large Grocery But No Supermarkets	460	6.9%	2,484,642	3.2%	293,669	2.8%
Smaller Stores but No Large Stores	1,030	15.5%	4,028,049	5.2%	439,940	4.3%
No Stores	567	8.5%	1,158,136	1.5%	73,515	0.7%
Total	6,652	100.0%	77,843,780	100.0%	10,341,269	100.0%
			Rural			
2 Supermarkets or More	546	3.3%	3,149,332	10.3%	525,588	11.2%
1 Supermarket	2,053	12.5%	7,972,658	26.1%	1,169,241	24.9%
Large Grocery But No Supermarkets	3,178	19.3%	7,180,605	23.5%	1,142,213	24.3%
Smaller Stores but No Large Stores	6,808	41.3%	9,520,590	31.2%	1,542,304	32.8%
No Stores	3,889	23.6%	2,706,677	8.9%	319,853	6.8%
Total	16,474	100.0%	30,529,862	100.0%	4,699,202	100.0%

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

In *mixed areas*, 69 percent of the areas have at least one supermarket, and 76 percent have at least a supermarket or large grocery. The proportion of individuals living in areas containing a supermarket or large grocery store exceeds 93 percent, and the proportion of the poor living in areas served by large stores approaches 95 percent. In these mixed areas, almost 9 percent of the areas have no authorized stores. Those "unserved" areas contain less than 2 percent of the total population and less than 1 percent of the population living in poverty.

In *rural areas*, about one-third of the areas have a supermarket or large grocery available within their boundaries. Sixteen percent have a supermarket. Areas with at least one supermarket or large grocery account for 60 percent of the total population in rural areas, about the same as the proportion living in poverty. A quarter of the population in rural areas are located in places where large groceries exist, but no supermarkets are present. Approximately 24 percent of the areas have no authorized retailers at all. Those "unserved" areas account for 9 percent of the overall population and 7 percent of people living below the poverty level in rural areas.

The information presented in Table IV-9 shows that those living below the poverty line seem to have the same degree of access, in the aggregate, as the population in general. To clarify the importance of supermarkets and large groceries within communities with varying levels of poverty, ZIP Code areas were divided into quintiles based on the poverty level of the area within each urbanization category. Tables IV-10 to IV-12 provide information on the mix of stores within each urbanization level by poverty quintile. In these tables, we have combined convenience stores with grocery/gas combination outlets.

In urban areas, supermarkets account for a smaller share of stores in areas experiencing a higher level of poverty than they do in areas with a lower level of poverty. Concomitantly, large groceries and small groceries are more highly represented in areas with higher poverty rates (Table IV-10). The number of supermarkets is highest in those areas with moderate levels of poverty. However, supermarket share decreases from almost 40 percent in areas with the lowest poverty rate to about 8 percent in areas with the highest poverty rate. On the other hand, as poverty level rises, the shares of large groceries and small groceries increase from 3 percent to 7 percent and 5 percent to 35 percent, respectively. Small groceries are most prevalent in high-poverty urban areas.

In mixed areas, the number of supermarkets is highest in the areas of higher poverty, although their representation is highest in low-poverty areas (Table IV-11). Supermarket share decreases from 29 percent to 13 percent as the level of poverty increases; however, the difference between low and high-poverty areas is closer in mixed areas than in urban areas, in which the share declines from 40 to 8 percent.

The share of large groceries does not vary notably across poverty levels. Overall and by store type, there are more authorized retailers in areas of higher poverty. There are about twice the number of supermarkets and three times the large groceries in areas with the highest poverty levels than those with the lowest poverty level. For smaller stores, the differences are even more dramatic. For instance, 10 times as many small groceries and five times as many convenience stores and grocery/gasoline outlets are in high-poverty areas than in low-poverty areas.

				Poverty R	ate Quintil	e of ZIP Co	de in Whic	h Store is L	ocated"			
Store Type	Lowest	owest Level of S Poverty		Second		vird	Fo	urth	Highest Pov	Level of erty	To	rtati
	Na.	PcL	No.	Pat	No.	Pct	Na.	PcL	No.	Pct	No.	PcL
Supermarkets	2,384	39.8%	2,760	27.6%	3,354	20.3%	3,496	13.4%	2,882	7.8%	14,877	15.6%
Large Groceries	196	3.3%	443	4.4%	750	4.5%	1,477	5.7%	2,483	6.7%	5,349	5.6%
Subtotal: (Large Stores)	2,580	43.1%	3,203	32.0%	4,104	24.9%	4,973	19.1%	5,365	14.5%	20,226	21.2%
Small Groceries	307	5.1%	950	9.5%	2,426	14.7%	6,304	24.2%	12,991	35.2%	22,979	24.1%
Convenience Stores and Grocery/Gas Combinations	2,085	34.8%	3,856	38.6%	6,586	39.9%	9,096	35.0%	10,186	27.6%	31,810	33.3%
Specialty Stores	440	7.4%	921	9.2%	1,585	9.6%	2,716	10.4%	4,008	10.9%	9,670	10.1%
Other Retailers	571	9.6%	1,068	10.7%	1,800	11.0%	2,934	11.3%	4,352	11.8%	10,725	11.3%
All Retailers	5,983	100.0%	9,998	100.0%	16.501	100.0%	26.023	100.0%	36,902	100.0%	95.411	100.09

* The median poverty rates by quintile are: 2.9 percent, 5.3 percent, 8.3 percent, 13.3 percent, and 26.5 percent. Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

			Nu by Str	mber and ore Type a	Tabl Percent o nd Pover	e IV-11 If Stones Ir by Level of	n Miland Ar I Store's L	ocation				
Store Tune				Poverty F	late Quintil	e of ZIP Co	de in Willich	Store in L	cated"			
Sole type	Lowest	Level of verty	54	bno:	Th	ird	Fci	eth	Highest Pov	Level of erty	To	tal
	No.	Pct	No.	Pot	No.	Pct.	No.	Pa	No.	Pct	No.	Pct
Supermarkets	1,594	29.2%	2,168	23.1%	2,524	20.1%	3,047	18.0%	2,895	13.4%	12,229	18.6%
Large Groceries	309	5.7%	540	5.8%	717	5.7%	976	5.8%	1,133	5.3%	_3,675	5.6%
Subtotal: (Large Stores)	1,903	34.9%	2,708	28.9%	3,241	25.8%	4,023	23.8%	4,028	18.7%	15,904	24.2%
Small Groceries	309	5.7%	724	7.7%	1,194	9.5%	1,835	10.9%	3,510	16.3%	7,572	11.5%
Convenience Stores and Grocery/Gas Combinations	2,130	39.1%	4,013	42.8%	5,422	43.1%	7,388	43.7%	9,604	44.6%	28,559	43.4%
Specialty Stores	437	8.0%	789	8.4%	1,154	9.2%	1,445	8.5%	1,825	8.5%	5,650	8.6%
Other Retailers	675	12.3%	1,137	12.2%	1,568	12.4%	2,222	13.1%	2,567	11.9%	8,170	12.3%
All Retailers	5,454	100.0%	9,371	100.0%	12,579	100.0%	16,913	100.0%	21,534	100.0%	65,855	100.0%

76

* The median poverty rates by quintile are: 4.2 percent, 8.0 percent, 11.8 percent, 16.3 percent, and 24.2 percent. Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

In rural areas, the number of supermarkets and the number of large groceries are roughly equivalent across various levels of poverty, but supermarkets and large groceries are more highly represented in low-poverty areas than in high-poverty areas (Table IV-12). However, in terms of retailer mix, low and high-poverty areas are more alike in rural areas than in urban areas.

Supermarkets account for 15 percent of the stores in low-poverty areas and 6 percent of stores in high-poverty areas. In low-poverty areas, large groceries account for almost the same share as supermarkets. In high-poverty areas, their share exceeds that of supermarkets. Large groceries account for almost twice as many stores in low-poverty areas as in high-poverty areas. As in urban and mixed areas, small groceries, convenience stores, and grocery/gas outlets are relatively more prevalent in rural areas of higher poverty.

Across all store types, there seems to be greater similarities in store mix between low- and highpoverty areas in rural areas than in urban areas. There also seems to be a greater level of mix in rural areas than in more urbanized areas—indicating that supermarkets have less presence in rural areas.

			Nu by Str	mber and ore Type a	Tab Percent i nd Pover	le IV-12 of Stores I ty Level of	n Rural Ai f Store's L	vas, ocation				
				Poverty R	Late Quinti	e of ZIP Co	cie în Whici	Store is Lo	cated*			
Store Type	Lowest	Lovel of verty	Sec	cond	T	ilrð	For	arth	Highest Pov	Level of erty	To	taf
	No,	PcL	No.	Pot	No.	Pet.	No.	Pct	No.	Pct	No.	Pct.
Supermarkets	751	14.6%	608	10.3%	633	9.6%	619	7.4%	685	5.6%	1,304	6.4%
Large Groceries	733	14.2%	895	15.2%	929	14.1%	996	12.0%	964	7.9%	1,960	9.6%
Subtotal: (Large Stores)	1,484	28.8%	1,503	25.5%	1,562	23.7%	1,615	19.4%	1,649	13.5%	3,265	16.0%
Small Groceries	692	13.4%	954	16.2%	1,174	17.8%	1,629	19.6%	3,043	24.9%	4,673	22.8%
Convenience Stores and Grocery/Gas Combinations	1,979	38.4%	2,270	38.6%	2,630	39.9%	3,567	42.9%	5,373	44.1%	8,941	43.6%
Specialty Stores	321	6.2%	381	6.5%	402	6.1%	419	5.0%	505	4.2%	928	4.5%
Other Retailers	675	13.2%	768	13.2%	827	12.5%	1,094	13.1%	1,623	13.3%	2,717	13.1%
All Retailers	5,151	100.0%	5,876	100.0%	6,595	100.0%	8,324	100.0%	12,197	100.0%	20,524	100.0%

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

In summary, although high-poverty areas seem to contain as many, if not more, supermarkets as lowpoverty areas, supermarkets represent a larger share of retailers in low-poverty areas than they do in other areas. In fact, regardless of whether the area is urban, mixed, or rural, the representation of supermarkets among all authorized retailers decreases with increases in the area's poverty rate.

To put the above analysis into further perspective, information about each level of the urbanization and poverty-level quintile is provided in Table IV-13. The table presents information on selected demographics and retailer density. Since large stores (supermarket and large-groceries) are important for providing access to a full range of foods, their per-capita availability (or density) is considered.

In *urban areas*, the areas that have the highest poverty rates tend to be geographically smaller and to have greater population density than other areas. There are typically more large stores in higher poverty areas, even when considered in light of the population level of the area. For instance, the median number of large stores is 0.17 per 1,000 persons in the highest poverty quintile, compared to 0.13 per 1,000 persons for ZIP Code areas in the middle quintile. The median density of supermarkets remains stable across the various poverty quintiles.

In *mixed areas*, lower rates of poverty are associated with higher densities of population. Supermarket density and large-store density increase as poverty rates increase. Thus, there are 0.18 supermarkets and 0.26 large stores per 1,000 persons in the highest poverty quintile and 0.14 and 0.20 per 1,000 persons, respectively, in the middle quintile.

In *rural areas*, lower rates of poverty are again associated with higher densities of population. However, there is little to say about how poverty rate varies with density of large stores, since there are so few overall, The density of stores, regardless of type, varies with the poverty level.

BLANK PAGE

Authorized	
Retailers'	
Characteristics and	
Access	
 Study	

			Geograp	hic, Population, and Ra by Urbanization	italier Characte Level and Pove	ristics of ZIP C rty Quintile	ode Areas,				
Urbanization	Poverty	Median Area	Median	Median Denaity	Median	Super	markets	Large	Stores	Tota	i Stores
Level	Quintile	(Square Miles)	Population	(Persons Per 5q. Mile)	Level	Median Number	Median Density*	Median Number	Median Density*	Median Number	Median Density*
Urban	0-20%	9	16804	1911	2.9	2	0.09	2	0.10	4	0.22
	20-40%	8	20604	2543	5.3	2	0.09	2	0.11	7	0.35
	40-60%	8	22969	2719	8.3	2	0.10	3	0.13	11	0.53
	60%-80%	7	24174	3166	13.3	2	0.10	3).15	17	0.77
	80%-100%	4	20242	4064	26.5	2	0.09	3	0.17	23	1.26
Mixed	0%-20%	27	8203	311	4.2	1	0.07	1	0.10	3	0.33
	20-40%	47	8382	172	8.0	1	0.12	1	0.16	5	0.58
	40-60%	79	8348	106	11.8	1	0.14	2	0.20	6	0.75
	60%-80%	106	8835	83	16.3	2	0.17	2	0.24	9	0.98
	80%-100%	134	8013	54	24.2	2	0.18	2	0.26	12	1.43
Rural	0-20%	36	1698	54	6.9	0	0.00	0	0.00	1	0.53
	20-40%	51	1252	26	11.1	0	0.00	0	0.00	1	0.86
	40-60%	68	1075	18	14.6	0	0.00	0	0.00	1	1.08
	60%-80%	75	1082	17	19.0	0	0.00	0	0.00	2	1.36
	80%-100%	68	1123	19	27.5	0	0.00	0	0.00	2	2.02

Table IV-13

* Density is the number of stores per 5,000 persons. N=29,073

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

 $\cdot \mathbf{1}_{i}$

In the previous analyses, we focused on describing the number of stores to describe retailer mix. Redemptions provide another view. In short, redemptions indicate where food stamp shoppers are using their food stamps, and thus provide evidence on store utilization patterns.

Supermarkets account for at least three-quarters of the food stamp redemptions in urban and mixed areas and almost 60 percent in rural areas. Redemptions in large groceries are notably higher in rural than in urban and mixed areas. Redemptions reflect the dollar amount of food stamp business that a store transacts. In 1993, the amount of redemptions by all FSP authorized stores examined in this study totaled 21 billion dollars. Table IV-14 presents redemptions totals by store type and urbanization level. Supermarkets account for 75 percent of the redemptions in urban areas, but only 59 percent in rural areas. On the other hand, large groceries account for 6 percent of the redemptions in urban areas and 18 percent in rural areas. Convenience stores and grocery/gas outlets account for higher proportions of redemptions in rural areas than in urban areas.

			Table	IV-14				
		Amou by Sto (Reden	nt and Perce re Type and options are in	int of Redem Urbanization Millions of	ptions, n Level Dollars)			
Store Type	Urban (Aman	Nitted	Areas	Runt	Areas	All A	(FREE)
	Amount .	Pol	Amount	Pet	Amount	PcL	Amount	Pct.
Supermarkets	9,638	74.6%	5,650	84.1%	776	58.9%	16,063	76.7%
Large Groceries	747	5.8%	296	4.4%	232	17.6%	1,275	6.1%
Subtotal: (Large Stores)	10,384	80.4%	5,945	88.5%	1,008	76.5%	17,338	82.8%
Small Groceries	919	7.1%	140	2.1%	88	6.7%	1,148 -	5.5%
Convenience Stores and Grocery/Gas Combinations	583	4.5%	339	5.0%	154	11.7%	1,075	5.1%
Specialty Stores	648	5.0%	144	2.1%	26	2.0%	818	3.9%
Other Retailers	378	3.0%	146	2.3%	41	3.1%	564	2.7%
All Retailers	12,913	100.0%	6,714	100.0%	1,317	100.0%	20,943	100.0%

In poorer areas, supermarkets account for a smaller share of redemptions than they do in more affluent areas. Of the 21 billion dollars in redemptions, more than a third occur in the 20 percent of ZIP Code areas that had the highest poverty rates while over 50 percent occur in 40 percent of the areas that had the highest poverty rates (Table IV-15). Supermarkets account for almost 90 percent of the redemptions in the first (or lowest poverty) quintile and 66 percent in the fifth (or highest poverty) quintile. A sudden drop off in share of supermarket redemptions can be seen between the fourth and fifth quintiles. The share of redemptions accounted for by large groceries and small groceries in the poorest areas are between six to nine times the share in the most affluent areas.

			by Sta	Amount a re Type ar (Redempi	Table nd Perce id Povert tion are to	nt of Rede y Level of 1 Millions	mptions Store's of Dollar	+ Location #}				
Store Type				Poverty R	ate Quinti	e of ZIP Co	de in Whi	ch Store is	Located			
	Lowes	Linvel of	Se	cond	T	ird	Foi	rth	Highest Por	Level of verty	To	tal
	No.	Pct	No	Pct	No.	PcL	No.	Pet	No.	Pct	No.	Pct
Supermarkets	2,073	88.7%	2,828	84.9%	2,959	81.7%	3,476	76.8%	4,727	66.3%	16,063	76.7%
Large Groceries	38	1.6%	110	3.3%	172	4.7%	281	6.2%	675	9.5%	1,275	6.1%
Subtotal: (Large Stores)	2,110	90.3%	2,937	88.2%	3,131	86.4%	3,757	83.0%	5,403	75.8%	17,338	82.8%
Small Grocerles	25	1.1%	75	2.3%	129	3.6%	242	5.3%	676	9.5%	1,148	5.5%
Convenience Stores and Grocery/Gas Combinations	63	2.7%	132	4.0%	166	4.6%	248	5.5%	467	6.5%	1,075	5.1%
Specialty Stores	61	2.6%	97	2.9%	114	3.1%	168	3.7%	379	5.3%	818	3.9%
Other Retailers	77	3.3%	90	2.7%	84	2.3%	109	2.4%	204	2.9%	565	2.7%
All Retailers	2,336	100.0%	3,332	100.0%	3,623	100.0%	4,524	100.0%	7,128	100.0%	20,944	100.0%

According to an examination of redemption patterns across poverty and urbanization levels, supermarkets account for a greater portion of food stamp redemptions in more affluent areas than in poorer areas. As urbanization decreases, redemption patterns in high and low-poverty areas demonstrate a greater level of similarity.

81

Authorized Retailers' Characteristics and Access Study

In Tables IV-16 through IV-18, we examine redemption information across different levels of poverty for urban, mixed and rural areas. ZIP Code areas were, again, classified into five quintiles based on poverty level.

Food stamp recipients shopping *in urban areas* tend to use supermarkets over other stores, although this is substantially less the case in low-poverty areas than in high-poverty areas (Table IV-16). Alternatives to supermarkets in high-poverty areas are large and small groceries. Supermarkets account for almost 92 percent of the redemptions in the lowest poverty areas and only 64 percent in the highest poverty areas. Food stamp households shopping in high-poverty areas tend to use large groceries and small groceries more so than do those shopping in low-poverty areas. The shares of redemptions accounted for by large groceries and small groceries rise from less than 1 percent to more than 9 percent and from less than 1 percent to more than 11 percent, respectively, as the poverty level increases.

			Amou by S	nt and Per tore Type (Reder	cent of I and Pove aptions i	Redemptio irty Leval n Millions	ns in Ur If Store's m Dollar	ban Areas Location N)	4, 1			
Store Turns				Poyerty	Rate Quin	lie of ZIP C	ade in Wh	ich Store in	Located*			
and the	Lowes Po	Lovel of verty	800	sond	π	lind	Fo	urth	Highest Pov	Level of erty	Tol	al .
	Amt	PcL	Amt.	Pct	Amt.	PcL	Amt.	Pct	Amt	Pet	Amt.	PcL
Supermarkets	437	91.7%	997	87.6%	1,783	85.4%	2,824	78.1%	3,597	64.3%	9,638	74.6%
Large Groceries	4	0.9%	16	1.4%	57	2.7%	163	4.5%	507	9.1%	747	5.8%
Subtotal: (Large Stores)	441	92.6%	1,012	89.0%	1,839	88.1%	2,987	8.'.6%	4,104	73.4%	10,384	80.4%
Small Groceries	4	0.9%	13	1.2%	50	2.4%	213	5.9%	640	11.4%	919	7.1%
Convenience Stores and Grocery/Gas Combinations	9	1.9%	30	2.6%	74	3.5%	168	4.6%	303	5.4%	583	4.5%
Specialty Stores	8	1.6%	37	3.3%	65	3.1%	160	4.4%	379	6.8%	648	5.0%
Other Retailers	14	3.0%	46	3.9%	60	2.9%	89	2.5%	169	3.0%	378	3.0%
All Retailers	476	100.0%	1,138	100.0%	2,088	100.0%	3,616	100.0%	5,594	100.0%	12,913	100.0%

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

When shopping in mixed areas, food stamp households use supermarkets over other stores regardless of the poverty level of the area; however, supermarkets account for a smaller proportion of food stamps used in high-poverty areas than in low-poverty areas (Table VI-17). In these mixed areas, food stamp households spend about 90 percent of their food stamps in the lowest poverty areas in supermarkets. In the highest poverty mixed areas, a smaller proportion of the redemptions (80 percent) can be attributed to supermarkets. Utilization of large groceries by food stamp shoppers is proportionately greater in high-poverty areas than in low-poverty areas. This is also the pattern for other store types; however, the magnitude of the differences is not as pronounced as in urban areas.

			Amound by Sto	nt and Per are Type a (Reden	cent of R nd Pover uption in	edemption ty Level of Millions of	is in Mixe Store's L Dollars)	d Areas, ocation				
				Poverty R	ate Quintil	e of ZIP Co	de in Which	Store is La	cated*			
Store Type	Lowes	t Level of verty	Se	cond	Th	ilrd	For	urth	Highest Por	Level of verty	To	xtal
	Amt.	Pct.	Amt.	Pct	Amt	Pot	Amt.	Pct	AmL	PcL	Amt.	Pct.
Supermarkets	326	90.3%	674	87.4%	1,076	86.5%	1,572	85.9%	2,002	79.9%	5,650	84.1%
Large Groceries	5	1.4%	20	2.6%	42	3.4%	77	4.2%	152	6.9%	296	4.4%
Subtotal: (Large Stores)	331	\$1.7%	694	90.0%	1,117	89.9%	1,649	90.1%	2,154	85.9%	5,945	88.5%
Small Groceries	3	0.8%	10	1.2%	17	1.4%	30	1.6%	81	3.2%	140	2.1%
Convenience Stores and Grocery/Gas Combinations	10	2.8%	29	3.8%	57	4.6%	86	4.7%	157	6.2%	339	5.0%
Specialty Stores	8	2.2%	17	2.3%	26	2.0%	33	1.8%	60	2.4%	144	2.1%
Other Retailers	9	2.5%	22	2.7%	27	2.1%	33	1.8%	56	2.3%	146	2.3%
All Retailers	361	100.0%	771	100.0%	1,244	100.0%	1,830	100.0%	2,507	100.0%	6,714	100.0%

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

As do their counterparts in urban and mixed areas, food stamp households shopping in rural areas tend to use supermarkets more than any other store (Table IV-18). However, the difference between supermarket use in high and low-poverty areas is less in rural than in others areas. Large groceries and convenience stores play an important role in rural areas. Supermarkets account for fewer redemptions in rural areas than in urban areas, regardless of poverty levels. Supermarkets in the highest poverty rural areas account for just over half the redemptions, while those in the lowest poverty areas account for about three-quarters of the redemptions.

Large groceries, convenience and grocery/gas outlets claim a larger share of redemptions in rural areas than in urban areas. Areas with high poverty levels in rural areas are associated with slightly greater usage of large groceries and a much high level in the use of convenience stores and grocery/gas combinations.

Table IV-18 Amount and Percent of Redemptions in Rural Arsas, by Store Type and Poverty Level of Store's Location (Redemptions are in Millions of Dollars)												
Store Type				Poverty 8a	te Quintili	of ZIP Cod	de in Whici	h Store is Lo	cated"	<u> </u>		
	Lowest Level of Poverty		\$	Second -		Third Fourth		Highest Level o Poverty		Te	tal	
	AmL	PcL	Amt	PeL	Amt.	Pct	Amt.	Pct	Amt.	Pct	Amt.	Pct
Supermarkets	99	72.7%	99	63.5%	124	62.7%	167	58.9%	287	52.8%	776	58.9%
Large Groceries	16	11.5%	27	17.1%	36	18.0%	55	19.4%	99	18.3%	232	17.6%
Subtotal: (Large Stores)	115	84.2%	126	80.6%	160	80.7%	222	78.3%	386	71.1%	1,008	76.5%
Small Groceries	4	3.0%	7	4.3%	10	5.2%	16	5.6%	51	9.4%	88	6.7%
Convenience Stores and Grocery/Gas Combinations	10	7.1%	14	8.8%	18	9.0%	31	10.8%	82	15.1%	154	11.7%
Specialty Stores	4	2.7%	5	3.5%	4	1.9%	6	2.1%	7	1.3%	26	2.0%
Other Retailers	4	3.0%	4	2.8%	6	3.2%	9	3.2%	17	3.1%	41	3.1%
All Retailers	137	100.0%	156	100.0%	198	100.0%	283	100.0%	543	100.0%	1,317	100.0%

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

One finding of special consequence, regardless of urbanization level, is the dramatic difference between the quintile with the highest poverty level and the other quintiles, particularly concerning the increase in median poverty level. That large disparity would suggest that areas belonging to that quintile deserve special attention. In the remainder of this analysis, we define high-poverty areas

84

Authorized Retailers' Characteristics and Access Study

as having a poverty rate of 20 percent of more, which corresponds roughly with the breakpoint for the top quintile. That breakpoint is also consistent with definitions used by HUD in defining economically distressed areas for inclusion in its Empowerment Zone/Enterprise Community Initiative.²

Retailer Availability in High-Poverty Areas

The availability of authorized retailers to households living in areas of high poverty is difficult to detect without controlling for population, the geographic size of the area, and other demographic characteristics. Those variables can be viewed, on one hand, as determinants of demand. On the other hand, they define some critical "supply" factors (such as the labor supply) that can affect the costs of doing business. In this section, we examine the degree to which authorized retailers are found in high-poverty areas. A multiple-regression framework is used to identify the relative presence of supermarkets, large retailers, and all authorized retailers in high-poverty urban, rural, and mixed areas. The regression approach used was based on a Poisson technique ³ for estimating the mean number of stores in six types of areas defined by the three urbanization levels and two poverty levels. In the analyses, population and land area are controlled.⁴ The regression is set up to draw conclusions about the number of stores present in each of six geographic areas (our three urbanization levels crossed against two poverty levels), ⁵ and provides the mean number of stores that should be expected to exist in each area based on the factors specified in Exhibit IV-1.

To compare our findings with those in the previous section, we limited the regression to variables available for ZIP Code areas from the 1990 Census. Because of unavailability of data, the equations do not reflect several important influences—such as zoning restrictions, the availability of food wholesalers and distributors, and the ability to assemble parcels of land within specific geographic locations. The regression nonetheless enables us to approximate the degree to which areas differ in supermarket and retailer availability after controlling for many supply and demand factors. These factors include population as well as other factors, and thus in effect provide a retailer density measure.

Authorized Retailers' Characteristics and Access Study \$5

² Enterprise Zones, in order to be eligible for inclusion in the HUD Enterprise Zone/Empowerment Community program, must have a poverty rate of 20 percent in each Census tract, or 25 percent in at least 90 percent of the Census tracts, or 35 percent in at least 50 percent of the Census tracts. The threshold of 20 percent is consistent with the level used for this analysis. It must be pointed out, however, that the units of geography differ. Over the wider area of a ZIP Code, it is more difficult to achieve as high a poverty rate as in Census tracts.

³ Poisson regression was used to estimate the number of supermarkets and large stores separately. A Poisson restriction was used to address the highly skewed nature of the store count data in which most cases had a value of zero.

⁴ The specification for the equation includes a term for area, a population variable, and a squared population variable. The squared population variable was included to avoid distortions that occur in less populated areas, where a store is likely to have a service area extending beyond the boundaries of the ZIP Code area in which it is located.

⁵ In this analysis, poverty level was split into two levels: those ZIP Code areas with less than a 20 percent poverty rate and those with a rate of 20 percent or more. This split contrasts the very poorest communities with other communities.

5

		Figure IV-1
	Market Fa	actors Relating to Predicting Store Location
Pop	ulation Based Factors	
	Population	general measure of demand
	Population < 20 Years	included because young generally consume more food than the elderly
	Population > 65 Years	included because elderly food intake and shopping differs from the rest of the population
	Household Size	included because large households can achieve economies of scale in shopping, influencing demand for food separately from population
•	Households with children	included because the food purchases of households with children differ substantially from households without children
•	Access to vehicle	included because vehicles expand individuals shopping choices beyond the local area and is therefore a potential influence on local demand for food
	High School Graduates	used as a proxy for education which can affect shopping preferences
	Female Headed Households Male Headed Households	used to reflect the effect in how household composition affects management of food shopping decisions
	Single Persons Hispanics, Blacks, Asian,	used to indicate preference variables that can affect the type of stores frequented
Iou	sehold or Community C	ontext Variables
Hou The fo	sehold or Community C illowing variables are used to descr and to demand, but mostly provide	ontext Variables ibe the population of the community identified by the ZIP Codes. These factors may relate to a context for describing the community.
Hou he fo upply	sehold or Community C llowing variables are used to descr and to demand, but mostly provid Average No. of Rooms	ontext Variables ibe the population of the community identified by the ZIP Codes. These factors may relate to e a context for describing the community. density of residential housing development
Hou he fo upply	sehold or Community C illowing variables are used to descrive and to demand, but mostly provide Average No. of Rooms Average time to commute	ontext Variables ibe the population of the community identified by the ZIP Codes. These factors may relate to e a context for describing the community. density of residential housing development used as proxy for efficiency of transportation infrastructure
Hou he fo upply	sehold or Community C illowing variables are used to descrive and to demand, but mostly provide Average No. of Rooms Average time to commute Use of public transportation	ontext Variables ibe the population of the community identified by the ZIP Codes. These factors may relate to e a context for describing the community. density of residential housing development used as proxy for efficiency of transportation infrastructure used as proxy for efficiency of transportation infrastructure
Hou he foupply	sehold or Community C illowing variables are used to descri- and to demand, but mostly provide Average No. of Rooms Average time to commute Use of public transportation Area	ontext Variables ibe the population of the community identified by the ZIP Codes. These factors may relate to e a context for describing the community. density of residential housing development used as proxy for efficiency of transportation infrastructure used as proxy for efficiency of transportation infrastructure general measure likely to be associated with the supply of food
Hou he foupply	sehold or Community C illowing variables are used to descri- and to demand, but mostly provide Average No. of Rooms Average time to commute Use of public transportation Area Population Squared	ontext Variables ibe the population of the community identified by the ZIP Codes. These factors may relate to e a context for describing the community. density of residential housing development used as proxy for efficiency of transportation infrastructure used as proxy for efficiency of transportation infrastructure general measure likely to be associated with the supply of food included to allow for economies of scale. As population increases relative to geographic areas, at the higher density levels store size and efficiency levels can increase.
Hou he foupply	sehold or Community Collowing variables are used to describe and to demand, but mostly provide Average No. of Rooms Average time to commute Use of public transportation Area Population Squared Absence of Plumbing	ontext Variables ibe the population of the community identified by the ZIP Codes. These factors may relate to e a context for describing the community. density of residential housing development used as proxy for efficiency of transportation infrastructure used as proxy for efficiency of transportation infrastructure general measure likely to be associated with the supply of food included to allow for economies of scale. As population increases relative to geographic areas, at the higher density levels store size and efficiency levels can increase. used to approximate the state of the infrastructure in the area and therefore the ease/difficulty of building or maintaining stores
Hou he foupply	sehold or Community C Moving variables are used to descri- and to demand, but mostly provide Average No. of Rooms Average time to commute Use of public transportation Area Population Squared Absence of Plumbing Median Rent	ontext Variables ibe the population of the community identified by the ZIP Codes. These factors may relate to e a context for describing the community. density of residential housing development used as proxy for efficiency of transportation infrastructure used as proxy for efficiency of transportation infrastructure general measure likely to be associated with the supply of food included to allow for economies of scale. As population increases relative to geographic areas, at the higher density levels store size and efficiency levels can increase. used to approximate the state of the infrastructure in the area and therefore the ease/difficulty of building or maintaining stores used to approximate the cost of land in the area and therefore the cost of doing business
Hou The fo upply	sehold or Community Collowing variables are used to descrive and to demand, but mostly provide Average No. of Rooms Average time to commute Use of public transportation Area Population Squared Absence of Plumbing Median Rent Employed in Services	ontext Variables ibe the population of the community identified by the ZIP Codes. These factors may relate to a a context for describing the community. density of residential housing development used as proxy for efficiency of transportation infrastructure used as proxy for efficiency of transportation infrastructure general measure likely to be associated with the supply of food included to allow for economies of scale. As population increases relative to geographic areas, at the higher density levels store size and efficiency levels can increase. used to approximate the state of the infrastructure in the area and therefore the ease/difficulty of building or maintaining stores used to approximate the local labor supply and, indirectly the cost of doing business in the area
Hou The fo upply	sehold or Community Co illowing variables are used to descri- and to demand, but mostly provide Average No. of Rooms Average time to commute Use of public transportation Area Population Squared Absence of Plumbing Median Rent Employed in Services Employed as an Operator	ontext Variables ibe the population of the community identified by the ZIP Codes. These factors may relate to e a context for describing the community. density of residential housing development used as proxy for efficiency of transportation infrastructure used as proxy for efficiency of transportation infrastructure general measure likely to be associated with the supply of food included to allow for economies of scale. As population increases relative to geographic areas, at the higher density levels store size and efficiency levels can increase. used to approximate the state of the infrastructure in the area and therefore the ease/difficulty of building or maintaining stores used to approximate the local labor supply and, indirectly the cost of doing business in the area also used to approximate the local labor supply and indirectly, the cost of doing business in the area
nte	sehold or Community Collowing variables are used to descrive and to demand, but mostly provide Average No. of Rooms Average time to commute Use of public transportation Area Population Squared Absence of Plumbing Median Rent Employed in Services Employed as an Operator	ibe the population of the community identified by the ZIP Codes. These factors may relate to a context for describing the community. density of residential housing development used as proxy for efficiency of transportation infrastructure used as proxy for efficiency of transportation infrastructure general measure likely to be associated with the supply of food included to allow for economies of scale. As population increases relative to geographic areas, at the higher density levels store size and efficiency levels can increase. used to approximate the state of the infrastructure in the area and therefore the ease/difficulty of building or maintaining stores used to approximate the local labor supply and, indirectly the cost of doing business in the area also used to approximate the local labor supply and indirectly, the cost of doing business in the area
Hou The foupply	sehold or Community Collowing variables are used to descrive and to demand, but mostly provide Average No. of Rooms Average time to commute Use of public transportation Area Population Squared Absence of Plumbing Median Rent Employed in Services Employed as an Operator	ontext Variables ibe the population of the community identified by the ZIP Codes. These factors may relate to a context for describing the community. density of residential housing development used as proxy for efficiency of transportation infrastructure general measure likely to be associated with the supply of food included to allow for economies of scale. As population increases relative to geographic areas, at the higher density levels store size and efficiency levels can increase. used to approximate the state of the infrastructure in the area and therefore the ease/difficulty of building or maintaining stores used to approximate the local labor supply and, indirectly the cost of doing business in the area also used to approximate the local labor supply and indirectly, the cost of doing business in the area
Hou The foupply inter- inte	sehold or Community Collowing variables are used to descrive and to demand, but mostly provide Average No. of Rooms Average time to commute Use of public transportation Area Population Squared Absence of Plumbing Median Rent Employed in Services Employed as an Operator	ontext Variables ibe the population of the community identified by the ZIP Codes. These factors may relate to a context for describing the community. density of residential housing development used as proxy for efficiency of transportation infrastructure general measure likely to be associated with the supply of food included to allow for economies of scale. As population increases relative to geographic areas, at the higher density levels store size and efficiency levels can increase. used to approximate the state of the infrastructure in the area and therefore the ease/difficulty of building or maintaining stores used to approximate the local labor supply and, indirectly the cost of doing business in the area also used to approximate the local labor supply and indirectly, the cost of doing business in the area rested in—the joint effect of urbanization and poverty on the number of supermarkets and tion terms. The five included terms are: Urban High-poverty, Mixed High-poverty, Rural The effect including the preceding five interaction terms in the regression is that the in Table 5—is "normed on Rural Other (i.e., non-high-poverty) areas.
Hou The foupply	sehold or Community C illowing variables are used to descr and to demand, but mostly provide Average No. of Rooms Average time to commute Use of public transportation Area Population Squared Absence of Plumbing Median Rent Employed in Services Employed as an Operator raction Terms obure the outcome we are most inter proceries—we included five interactor poverty, Urban Other, Mixed Other sion intercept—i.e., the "constant"	ibe the population of the community identified by the ZIP Codes. These factors may relate to a context for describing the community. density of residential housing development used as proxy for efficiency of transportation infrastructure general measure likely to be associated with the supply of food included to allow for economies of scale. As population increases relative to geographic areas, at the higher density levels store size and efficiency levels can increase. used to approximate the state of the infrastructure in the area and therefore the ease/difficulty of building or maintaining stores used to approximate the local labor supply and, indirectly the cost of doing business in the area also used to approximate the local labor supply and indirectly, the cost of doing business in the area rested in—the joint effect of urbanization and poverty on the number of supermarkets and this nere. The effect included terms are: Urban High-poverty, Mixed High-poverty, Rural the effect including the preceding five interaction terms in the regression is that the in Table 5—is "normed on Rural Other (i.e., non-high-poverty) areas.

4

Authorized Retailers' Characteristics and Access Study 86

Figure IV-1 presents a graphical depiction of the average number of stores estimated for each of the urbanization and poverty level variables. Table IV-19 presents the results of the full regression.

Overall, the data indicate that some areas are less able than others to sustain supermarkets and large groceries. However, the average number of supermarkets in high-poverty urban areas is slightly less than in other urban areas, even when controlling for many of the market factors that influence store placement.

In particular, we find:

- The estimated average number of supermarkets in high-poverty urban areas (0.9 stores) is lower than the average number in lower-poverty urban areas (1.14 stores). The regression coefficients are statistically significant.
- The number of estimated supermarkets is larger in high-poverty mixed areas than in lowerpoverty mixed areas; and there is virtually no difference in the number of supermarkets in highpoverty and lower-poverty rural areas

Figure IV-2

The Average Number of Stores in the Area Controlling for Demographics, by Store Type, Urbanization and Poverty Level



Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

Regression Coefficients Demonstrating									
the shoes a beleved beingraphic and Housing Measures on Otore Docation									
Measure	Large	Stores	Supermarkets						
	CoelTicient	t-Value	Coefficient	t-Value					
Constant	-0.6831	-5.29	-0.8971	-5.83					
Area	0.0001	10.34	0.0001	8.02					
Population	0.0831	83.85	0.0916	73.85					
Population Squared	-0.0006	-44.19	-0.0008	-41.21					
Population <20 Years	7.1012	1.92	-0.0049	-1.51					
Population >65 Years	28.2020	6.89	0.0058	3.18					
Household size	-1.8624	-7.90	-0.4596	-10.25					
Female Headed Households	13.8450	5.79	0.0076	3.49					
Male Headed Households	30.4617	-4.39	-0.0540	-8.63					
Households with Children	0.0075	4.08	0.0095	4.23					
Single Persons	0.0001	5.30	0.0000	1.79					
Hispanics	0.0000	-0.67	0.0000	4.51					
Blacks	-0.0018	-3.63	-0.0014	-2.24					
Asian	0.0033	2.39	0.0012	0.68					
Foreign	0.0057	5.37	0.0012	0.86					
High School Graduate	-0.0081	-8.64	-0.0061	-5.13					
Average No. of Rooms	0.0219	1.81	0.0507	3.48					
Median Rent	0.0001	1.22	0.0003	3.40					
Absence of Plumbing	-0.0257	-9.00	-0.0190	-4.66					
Employed in Services	-0.0008	-0.73	-0.0006	-0.48					
Employed as an Operator	0.0104	8.95	0.0122	8.15					
Average Time of Commute	-0.0042	-3.21	-0.0042	-2.56					
Use of Public Transportation	-0.0017	-1.42	-0.0008	-0.55					
Access to Vehicle	0.0040	3.08	0.0019	1.15 -					
Urban High-poverty	0.2374	7.10	0.6757	15.46					
Mixed High-poverty	0.7404	28.20	1.3052	38.62					
Rural High-poverty	-0.0505	-1.86	0.0055	0.13					
Urban Other	0.3405	13.85	0.9099	28.73					
Mixed Other	0.6186	30.46	1.1484	42.18					

Accessibility and Availability of Retailers in Highly Urbanized Areas

In this chapter we restrict our discussion to highly urbanized areas with an urbanization level of at least 90 percent. Such areas are found largely in cities of medium to large size and in the surrounding suburbs. Overall they provide a setting in which a generally high level of retailer service is expected. Urbanized areas account for 56 percent of the population and more than 3.2 percent of the land area in the continental United States. They contain about half of all FSP-authorized stores and about the same percentage of authorized supermarkets. As indicated in the previous chapter, high-poverty urban areas are likely, when compared to other urban areas, to have fewer supermarkets and large groceries. This chapter examines the ability of larger retailers (supermarkets and large groceries) in high-poverty urban areas to fill a shopper's market basket as inexpensively as stores in other urban areas. We will also give close attention to the food shopping situation in underserved areas.

Retailer Characteristics

In Chapter III, the findings show that retailer characteristics vary by type of store, with supermarkets standing alone and large groceries (e.g., groceries with between \$500,000 and \$2 million in gross sales) occupying a second tier. The other five store types (small groceries, convenience stores, grocery/gas stations, specialty stores, and "other" stores) generally cannot match these two major store types on measures of variety, availability, quality, and cost. The presentation in this section relates to potential differences in retailer characteristics between high-poverty and other urban areas.

In terms of providing variety, the fundamental gap between urban supermarkets and large groceries and that of "other" urban stores persists. In Table V-1, differences among supermarkets, large groceries, and "other" stores hold up across three general measures of variety. For instance, large grocery stores show 40 to 50 percent less variety in brands, package types, and assortment than supermarkets. In turn, "other" stores show about half as much variety as large groceries.

When stores in high-poverty areas are compared to stores in other areas, they show consistently less variety across all measures. Supermarkets in those areas show this characteristic most starkly, having five to 10 percent less variety than those in other areas. The difference in variety is least noticeable in small groceries, whose variety in high-poverty areas is equal to (or even greater than) that in other areas.

In Table V-2, we calculate the percentage of stores that carry at least 50 percent of market basket requirements in each of the major food categories. We excluded fresh fish because of its unavailability in most stores. In assessing variety across different food groups, supermarkets, which can provide 93 percent of the market basket, again stand out from large groceries, which can provide about 38 percent. A very small fraction of other types of stores being able to provide foods across the entire market basket. It is notable that the larger stores (supermarkets and large groceries) in high-poverty areas are better able to provide foods ranging across the entire market basket.

Retailer Accessibility and Availability in Highly Urban Areas

Table V-1 Variety in Brands, Packaging, and Assoriment of Market Basket Items in Highly Urbanized Areas, by Store Type and Poverty Level										
	Brands			Package Types			Assortment			
Store Type	High- Poverty Areas	Other Areas	All Areas	High- Poverty Areas	Other Areas	All Areas	High- Poverty Areas	Other Areas	All Areas	
Supermarkets	1.90	2.05	2.04	2.11	2.31	2.30	2.41	2.68	2.66	
Large Groceries	1.20	1.21	1.21	1.32	1.36	1.35	1.48	1.59	1.56	
Small Groceries	0.80	0.75	0.77	0.90	0.87	0.88	0.98	0.97	0.97	
Convenience Stores	0.75	0.81	0.80	0.83	0.95	0.93	0.93	1.06	1.04	
Grocery/Gas Stations	0.58	0.88	0.83	0.69	1.02	0.96	0.77	1.17	1.11	
Specialty Stores	0.29	0.27	0.28	0.30	0.31	0.31	0.45	0.44	0.44	
Other Stores	0.29	0.40	0.37	0.33	0.46	0.42	0.41	0.55	0.50	
All Stores	0.69	0 96	0.90	0.77	1.10	1.02	0.87	1 26	1.18	

Table V-2 Percent of Stores Carrying At Least 50 Percent of the Market Basket Across Major Food Groups in Highly Urbanized Areas, by Store Type and Poverty Level							
Store Type	High-Poverty Areas	Other Areas	Al. Areas				
Supermarkets	100%	92%	93%				
Large Groceries	46%	35%	38%				
Small Groceries	4%	4%	4%				
Convenience Stores	0%	0%	0%				
Grocery/Gas Stations	0%	0%	0%				
Specialty Stores	0%	1%	0%				
Other Stores	0%	0%	0%				

V-2

Retailer Accessibility and Availability in Highly Urban Areas

Product availability offered by the various types of food stores in urban areas is consistent with the findings reported for all areas. As depicted in Figure V-1, product availability measures the average share of a market basket of 142 commonly purchased food items that is available from stores in each of the store type categories. Supermarkets are found to offer greatest availability, followed by large grocery stores. Trailing somewhat further back are "other" stores. Stores in high-poverty urban areas are generally found to offer the same product availability as stores located in other urban areas. Between supermarkets and large groceries, there is little, if any, difference (2 to 3 percent) between stores in high-poverty areas and stores in other urban areas. For the rest of the store types, the availability of the market basket varies, although the largest difference is in grocery/gas outlets, where there is a 20-percentage-point gap between high-poverty and other urban areas.

When high-poverty and other urban areas are compared by *product availability within food groups*, high-poverty-area stores are found to consistently offer less variety, although the difference varies among food groups (Table V-3).

Figure V-1

Percentage of Market Basket Available in Highly Urbanized Areas, by Store Type and Poverty Level



Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997, Appendix C: Table C-1

Retailer Accessibility and Availability in Highly Urban Areas

by Food Group and Poverty Level								
Food Group	High-Poverty Areas	Other Areas						
Fresh meat	22%	30%						
Fresh poultry	21%	25%						
Fresh fish	7%	21%						
Processed meat	54%	66%						
Packaged meat	36%	44%						
Fresh produce	36%	43%						
Packaged produce	48%	59%						
Dairy products	33%	52%						
Eggs	73%	78%						
Cereals/grains	62%	72%						
Bakery products	61%	74%						
Dinner mixtures	37%	51%						
Other foods	66%	78%						

Another indication of availability is measured by the incidence of missing food items within food groups in the market basket. Comparing across food groups, stores in high-poverty urban areas consistently show a higher incidence of unavailable food items compared to stores in other urban areas (Table V-4).

Disaggregating the numbers by store type, however, reveals that although the relationship between poverty level and missing foods is consistent across food groups, it is not consistent by store type. Among supermarkets, stores in high-poverty urban areas provide about the same level of availability as supermarkets in other urban areas (except for fresh seafood, which was frequently unavailable in stores regardless of the type of store). Looking at large grocery stores, the incidence of available items varies by food group, with high-poverty areas more likely to carry products than those in other areas.

In general, relatively fewer large groceries in high-poverty urban areas lack fresh meat and fresh seafood when compared to large groceries in other urban areas. On the other, hand relatively more large groceries in the high-poverty areas lack fresh produce and bakery products. For instance, 8 percent of the large groceries in high-poverty urban areas do not carry fresh meat, compared to 24 percent in other urban areas. On the other hand, 15 percent of the large groceries in high-poverty urban areas do not carry fresh meat, compared to 24 percent in other urban areas. On the other hand, 15 percent of the large groceries in high-poverty urban areas do not carry fresh produce or bakery products, compared to 5 percent in other areas.

Thus, while food stores in high-poverty urban areas generally offer their customers less product availability than stores in other areas, that is not uniformly true across all store types. Supermarkets, in particular, tend to offer comparable availability regardless of area income.

We also found a number of large number of urban food retailers classified as large grocery stores lack some basic foods. For example, 8 percent of large grocery stores have none of the bakery products in our market basket, 12 percent have none of the dairy products, 16 percent have none of the processed meats, 20 percent lacks any of the fresh meats, and 38 percent have none of the fresh poultry products.

			Т	able V-4				
	Percentage of S	by Food	lich Foods V Groups, Sto	Vere Not Availat re Type, and Po	le in Highly I verty Level	Urbanized Are)as,	
For Stores in High-Poverty Urban Areas	Supermarkets	Large Grocerles	Small Grocerles	Convenience Stores	Grocery/ Gasoline Stations	Speciality Stores	Other Stores	All
Fresh meat Fresh poultry Fresh seatood	0% 0% 67%	8% 38% 69%	40% 59% 97%	61% 93% 100%	42% 100%	53% 56% 78%	88% 98% 98%	51% 70% 93%
Processed meat Packaged meat	0%	15%	16%	18%	17%	59% 53%	83% 62%	33%
Fresh produce Packaged	0% 0%	15% 0%	20% 0%	25% 0%	83% 0%	72% 50%	26% 43%	31%
Dairy products Eggs	0% 0%	15% 0%	12% 13%	11% 18%	8% 25%	66% 59%	64% 55%	27%
Cereals, grains Bakery products	0% 0%	0% 15%	1% 4%	0% 0%	8% 0%	47% 53%	55% 50%	16% 18%
Dinner mixtures Other foods	0% 0%	8% 0%	2% 0%	2% 0%	8% 0%	59% 38%	60% 31%	20%
Number of observations	9	13	93	44	12	32	42	245
For Stores in Other Urban Areas	Supermarkets	Large Grocerles	Second Groceries	Convenience Stores	Grocery/ Gesoline - Stations	Speciality Stores	Other Stores	All
Fresh meat	1%	24%	52%	69%	56%	82%	80%	49%
Fresh poultry	4%	38%	73%	72%	89%	100%	88%	67%
Fresh seafood	17%	92%	98%	67%	98%	100%	96%	79%
Processed meat Packaged meat	1% 0%	16% 3%	22% 4%	75% 49%	12% 3%	7% 2%	69% 48%	24%
Fresh produce	1%	5%	15%	70%	20%	18%	35%	21%
Packaged	0%	0%	1%	38%	0%	0%	20%	6%
Dairy products	0%	11%	11%	60%	4%	0%	39%	14%
Eggs	0%	11%	17%	69%	12%	16%	55%	21%
Cereals, grains	0%	3%	2%	58%	2%	0%	40%	11%
Bakery products	1%	5%	9%	35%	2%	0%	27%	9%
Dinner mixtures	0%	0%	2%	54%	2%	0%	35%	10%
Other foods	0%	0%	0%	27%	0%	0%	26%	6%
Number of observations	154	37	162	81	244	55	85	818

Authorized Retailers' Characteristics and Access Study

Retailer Accessibility and Availability in Highly Urban Areas

Chapter V.

A high proportion of urban stores offer foods in all four categories, with the exception of specialty stores and other stores, which by their nature generally offer a limited variety of foods. The share of food stores selling products in all four staple food categories is compared by store type in Table V-5. For most store types, there is no indication that stores in high-poverty urban areas are less able to fulfill the variety aspect of the staple foods requirement than stores in other urban areas.

Share of Food Stores in Highly Urbanized Areas Selling Foods in All Fo Staple Food Categories, by Store Type and Poverty Level							
Store Type	High-Poverty Areas	Other Areaa					
Supermarkets	100%	100%					
Large Groceries	100%	\$2%					
Small Groceries	94%	94%					
Convenience Stores	100%	98%					
Grocery/Gasoline	92%	100%					
Speciality Stores	38%	28%					
Other Stores	29%	52%					
All Store Types	77%	86%					

A smaller number of households in high-poverty areas can fill their market basket from shelf stocks, on average, than those shopping in stores in other urban areas. The shelf inventory measure—which represents the number of household market baskets that could be filled from store shelves—is compared between stores in high-poverty urban areas and those in other urban areas in Table V-6. Although this relationship holds across all store types, the magnitude of the differences amounts to less than one household in all cases except for grocery/gasoline outlets.

Average Number of Shelf Stocks in Hig	Households whose Market hiv Urbanizad Stores, by St	Desket Needs Ars Net From ore Type and Poverty Lavel
Store Type	High-Poverty Areas	Other Areas
Supermarkets	7.2	8.1
Large Groceries	4.3	4.8
Small Grocerles	2.8	2.9
Convenience Stores	2.7	2.9
Grocery/Gasoline	2.2	3.3
Speciality Stores	0.9	1.0
Other Stores	1.3	1.6
All Stores	2.5	3.7

Overall, inferior quality was not found to be a major problem in urban area stores, just as it was not found to be a problem nationally. The food groups for which problems of quality are most prevalent, fresh produce and fresh meat, are compared by store type and by area income in Table V-7. Differences by area income are largely confined to small grocery stores in the case of fresh meat, and to convenience stores and other stores in the case of fresh produce. In those instances, stores in low-income areas have more frequent occurrences of food of unacceptable quality. With those exceptions, however, differences by area income are small.

	Fresh M	set	Erech Pr	roduice	All Foods		
Store Type	High- Poverty Areas	Other Areas	High-Parverty Areas	Other	High-Poverty Areas	Other Areas	
Supermarkets	1%	1%	4%	3%	2%	1%	
Large Groceries	0%	0%	10%	9%	2%	2%	
Small Groceries	13%	1%	14%	15%	3%	3%	
Convenience Stores	-	-	13%	8%	3%	1%	
Grocery/Gasoline Stations	-	-	-	-	1%	1%	
Specialty Stores	-	-	11%	12%	1%	2%	
Other Stores	-	-	9%	5%	4%	2%	
All Stores	11%	1%	12%	8%	3%	2%	

As reported in Chapter III, substantial differences are found among store types in the cost of buying a 42-item market basket of foods. Foods purchased from supermarket products are found to be lowest in cost, followed by large grocery stores, with all other store types selling products that were somewhat higher in cost. The same general pattern was observed in highly urbanized areas (Table V-8). The table provides both store-based and redemption-based cost, the latter of which takes the places that people shop into account. Because not many of the smaller stores could supply costs for items, they were collapsed into a single category, "other stores." Comparing urban supermarkets across poverty-level categories reveals comparatively little difference. In general, there is a 4-to-8cent advantage according to the redemption-based estimates, which means that FSP households are shopping at less costly supermarkets. Again, there is a gap between supermarkets and large groceries that favors shopping at supermarkets. However, the market basket in large groceries located in high-poverty areas costs less than in large groceries stores in other areas. The market basket in small stores generally costs 46 cents on the dollar more than at supermarkets in highly urbanized areas. Across all store types, the places where FSP households shop cost less than the places available to them.

96

V-7

Retailer Accessibility and Availability in Highly Urban Areas

Store- and Rev	lemption-Based C by S	ost Index o tore Type a (Superma	f Market Ba nd Poverty rkets =1.00)	isket in Highly Ur Level	banized Str	ores,	
Store Type	Str	ore Based		Redemption Based			
	High-Poverty Areas	Other Areas	All Arees	High-Plaverty Areas	Other Areas	All Area	
Supermarkets	1.02	1.00	1.00	0.94	0.96	0.96	
Large Groceries	1.13	1.27	1.24	1.08	1.17	1.12	
Other Stores	1.41	1.48	1.46	1.27	1.39	1.31	

Full-service departments are most prominent in supermarkets, though they are found to a lesser degree in other store types as well (Table V-9). Additional products and services were measured in two ways: by the number of full-service departments in the store and by the number of nonfood product lines (such as clothing, furniture, and tobacco products) that are sold. For all urban stores combined, deli and meat departments are most often full-service departments. Among urban supermarkets, full-service departments are found about half as frequently in high-poverty area stores as in other urban stores. For most other store types, there was relatively little difference between high-poverty and other urban areas.

Some nonfood products are stocked by most types of food stores. Among urban stores, the greatest difference in the number of nonfood lines carried is between supermarkets in high-poverty areas (an average of eight nonfood lines carried) and supermarkets in other areas (with an average of 10 nonfood lines carried). Differences within each of the other store types by area income were small.

Ave	rage Number of Full-Ser Sold in Highly Urbani	vice Departments and T zed Areas, by Store Typ	ypes of Nonfood Produc s and Poverty Lavel	28 	
Store Tune	Average Humber of	Full-Service Departmenta	Average Number of Nonfood Product Lines		
and the	High-Poverty Areas	Cliver Arbea	High-Poverty Areas	Other Areas	
Supermarkets	1.7	3.6	7.9	10.1	
Large Groceries	1.2	1.2	7.1	6.9	
Small Groceries	0.7	0.7	5.8	5.1	
Convenience Stores	0.2	0.3	7.5	7.4	
Grocery/Gas Stations	0.0	0.2	. 8.4	9.0	
Specialty Stores	1.0	0.9	0.9	0.5	
Other Stores	0.2	0.5	1.7	3.0	
All Stores	0.6	1.1	5.0	6.4	

Authorized Retailers' Characteristics and Access Study

Accessibility in Urban Areas

It is evident from the findings reported in this chapter that there are differences among food stores in urban areas in terms of availability, variety, and cost. Within high-poverty urban areas, which are of particular concern to this study, supermarkets provide service at or above the quality level of other store types, often substantially above. Although supermarkets in high-poverty urban areas are not generally on a par with supermarkets in other urban areas, on balance the differences are not large. By some measures, large grocery stores in high-poverty urban areas are not far behind supermarkets in their level of service.

Given those differences, it is important to know more about the distribution of the individual types of stores in the areas where FSP participants live. It is particularly important to know whether they have close-by access to supermarkets and large grocery stores and whether they are located such that they are able to take advantage of the greater variety, increased availability, and lower costs offered by those stores. Information collected in three substantially different urban settings—the inner city of Baltimore, Maryland; Pasadena, California; and southeast Los Angeles, California—were analyzed to determine the level of accessibility at the ZIP Code level. Baltimore and southeast Los Angeles are both areas with high levels of poverty (40 to 50 percent), relatively large minority population (80 percent or more), and high rates of household participation in the FSP. Pasadena's population, in contrast, has a greater mix of low-income and more affluent households. About 20 percent of Pasadena's households are poor; the rate of FSP participation is estimated at 25 percent.

The structure of food retailing in those three markets is quite different. The Baltimore "inner city" market area is served by a relatively large number of food stores (585), including concentrations in and around four large indoor "farmers markets." In that area, supermarkets and large grocery stores accounted for only 4 percent of all stores and 55 percent of FSP redemptions, far below the national average (Table V-10). In Pasadena, one-third of a much smaller number of stores (52) were supermarkets or large groceries, although none of the large chain stores operating in the area were located in neighborhoods with the highest incidence of poor households. Large stores in the area accounted for 90 percent of FSP redemptions. Southeast Los Angeles differed from both Pasadena and Baltimore in that there were no "well-off" areas nearby where residents could readily do food shopping. Although supermarkets and large grocery stores accounted for only 15 percent of all stores in southeas! Los Angeles, they accounted for 76 percent of food stamp redemptions.

Accessibility to participating food stores was measured in terms of the share of FSP households within a given distance, e.g. one-quarter mile or one-half mile of a store. Within all three of the areas, 80 to 100 percent of FSP participant households are within one-quarter mile of an authorized FSP retailer of any type. However, only about half of the households (45 to 52 percent) were within that range of a supermarket or large grocery. Extending the distance to one-half mile increases the share of households that are within range of a supermarket or large grocery is about a quarter mile in all three areas. In two of the three areas (Baltimore and southeast Los Angeles), all FSP households were within one mile of a supermarket. In Pasadena, nearly all FSP households were within that range.

In general, those sites, although not considered in any sense representative of urban areas nationwide, do portray a surprisingly consistent picture of close proximity between FSP households and supermarkets and large groceries. This overall positive picture of access may, however, gloss over particular situations where pockets of households have poor access.

Proximity to Food Stores	Baltimore,	Pasadena,	Southeast Los Angeles	
	Maryland	California	California	
Participants within .25 mile of				
Supermarket	38%	30%	18%	
Supermarket or Large Grocery	45%	52%	47%	
Any Authorized Food Store	99%	80%	96%	
Participants within .50 mile of				
Supermarket	89%	54%	55%	
Supermarket or Large Grocery	96%	93%	90%	
Any Authorized Food Store	100%	99%	100%	
Participants within 1.0 mile of				
Supermarket	100%	82%	97%	
Supermarket or Large Grocery	100%	100%	100%	
Any Authorized Food Store	100%	100%	100%	
Supermarkets and Large Grocery as				
Share of All Stores	4%	34%	17%	
Share of All Redemptions	55%	90%	76%	
Median Distance (Miles)	0.27	0.24	0.26	

Underserved Areas

In our examination of residential ZIP Code areas, we found that even in urban areas, there are locations that do not contain a large retailer such as a supermarket or large grocery. One question of importance is whether those areas are located in high-poverty communities. Prior to examining the data, it should be noted that in urban situations, ZIP Code areas can describe individual buildings such as residential hotels, large areas with few permanent residents such as airports and business districts, or areas such as college campuses and urban military facilities.

Accessibility in Urban Areas

It is evident from the findings reported in this chapter that there are differences among food stores in urban areas in terms of availability, variety, and cost. Within high-poverty urban areas, which are of particular concern to this study, supermarkets provide service at or above the quality level of other store types, often substantially above. Although supermarkets in high-poverty urban areas are not generally on a par with supermarkets in other urban areas, on balance the differences are not large. By some measures, large grocery stores in high-poverty urban areas are not far behind supermarkets in their level of service.

Given those differences, it is important to know more about the distribution of the individual types of stores in the areas where FSP participants live. It is particularly important to know whether they have close-by access to supermarkets and large grocery stores and whether they are located such that they are able to take advantage of the greater variety, increased availability, and lower costs offered by those stores. Information collected in three substantially different urban settings—the inner city of Baltimore, Maryland; Pasadena, California; and southeast Los Angeles, California—were analyzed to determine the level of accessibility at the ZIP Code level. Baltimore and southeast Los Angeles are both areas with high levels of poverty (40 to 50 percent), relatively large minority population (80 percent or more), and high rates of household participation in the FSP. Pasadena's population, in contrast, has a greater mix of low-income and more affluent households. About 20 percent of Pasadena's households are poor; the rate of FSP participation is estimated at 25 percent.

The structure of food retailing in those three markets is quite different. The Baltimore "inner city" market area is served by a relatively large number of food stores (585), including concentrations in and around four large indoor "farmers markets." In that area, supermarkets and large grocery stores accounted for only 4 percent of all stores and 55 percent of FSP redemptions, far below the national average (Table V-10). In Pasadena, one-third of a much smaller number of stores (52) were supermarkets or large groceries, although none of the large chain stores operating in the area were located in neighborhoods with the highest incidence of poor households. Large stores in the area accounted for 90 percent of FSP redemptions. Southeast Los Angeles differed from both Pasadena and Baltimore in that there were no "well-off" areas nearby where residents could readily do food shopping. Although supermarkets and large grocery stores accounted for only 15 percent of all stores in southeast Los Angeles, they accounted for 76 percent of food stamp redemptions.

Accessibility to participating food stores was measured in terms of the share of FSP households within a given distance, e.g. one-quarter mile or one-half mile of a store. Within all three of the areas, 80 to 100 percent of FSP participant households are within one-quarter mile of an authorized FSP retailer of any type. However, only about half of the households (45 to 52 percent) were within that range of a supermarket or large grocery. Extending the distance to one-half mile increases the share of households that are within range of a supermarket or large grocery, from 90 to 96 percent. The median distance from a supermarket or large grocery is about a quarter mile in all three areas. In two of the three areas (Baltimore and southeast Los Angeles), all FSP households were within one mile of a supermarket. In Pasadena, nearly all FSP households were within that range.

In general, those sites, although not considered in any sense representative of urban areas nationwide, do portray a surprisingly consistent picture of close proximity between FSP households and supermarkets and large groceries. This overall positive picture of access may, however, gloss over particular situations where pockets of households have poor access.

		T	Southeast	
Proximity to Food Stores	Baltimore, Maryland	Pasadena, California	Los Angeles California	
Participants within .25 mile of				
Supermarket	38%	30%	18%	
Supermarket or Large Grocery	45%	52%	47%	
Any Authorized Food Store	99%	80%	96%	
Participants within .50 mile of				
Supermarket	89%	54%	55%	
Supermarket or Large Grocery	96%	93%	90%	
Any Authorized Food Store	100%	99%	100%	
Participants within 1.0 mile of				
Supermarket	100%	82%	97%	
Supermarket or Large Grocery	100%	100%	100%	
Any Authorized Food Store	100%	100%	100%	
Supermarkets and Large Grocery as				
Share of All Stores	4%	34%	17%	
Share of All Redemptions	55%	90%	76%	
Median Distance (Miles)	0.27	0.24	0.26	

Underserved Areas

In our examination of residential ZIP Code areas, we found that even in urban areas, there are locations that do not contain a large retailer such as a supermarket or large grocery. One question of importance is whether those areas are located in high-poverty communities. Prior to examining the data, it should be noted that in urban situations, ZIP Code areas can describe individual buildings such as residential hotels, large areas with few permanent residents such as airports and business districts, or areas such as college campuses and urban military facilities.

Retailer Accessibility and Availability in Highly Urban Areas

Of the total number of underserved ZIP Code areas examined in this study, only 7 percent were located in areas that had a level of urbanization exceeding 90 percent. With regard to poverty, Table V-11 indicates that 84 percent of the underserved highly urban areas were located in areas with poverty rates below 10 percent and more than half were located in areas where the poverty rate was less than 5 percent. Just above 4 percent of the underserved areas were located in areas where the poverty rate was 30 percent or more. Approximately 65 percent of the areas that lacked either a supermarket or large grocery have a poverty rate of less than 10 percent, and more than a third have a poverty rate above 5 percent. When compared to the distribution of areas across different poverty levels, the data indicate that areas lacking any authorized retailer tend to be concentrated in places of lower poverty.

Table V-11 Number and Percentage of Urban Unserved Areas, by Poverty Lavel							
Poverty Rate of Area	Area	Areas Lacking Retailers		Areas Lacking Large Stores		Total Areas	
	No.	Pct	No.	Deverty Lavel acking	No.	Pct.	
Less than 2.5 Percent	75	24.0%	123	13.6%	355	6.0%	
Between 2.5 and 4.9 Percent	103	33.0%	219	24.3%	1,266	21.3%	
Between 5 and 9.9 Percent	83	26.6%	274	30.3%	1,829	30.8%	
Between 10 and 19.9 Percent	30	9.6%	153	16.9%	1,472	24.8%	
Between 20 and 29.9 Percent	7	2.2%	72	8.0%	591	9.9%	
30 Percent or More	14	4.5%	62	6.9%	434	7.3%	
Total Urbanized Areas	312	100.0%	903	100.0%	5,947	100.05	

Authorized Retailers' Characteristics and Access Study

Retailer Accessibility and Availability in Highly Urban Areas

Access to food stores in urban areas differs both in terms of distance and time from that in rural areas. People locate in urban areas largely because of the opportunities and services they provide. Access, in a place like Manhattan means having a grocer or large retailer down the street, or at the farthest, within several blocks. Table V-12 presents distance statistics for the urban areas without supermarkets or large groceries. The distances represent the mileage between the centroid of the unserved ZIP Code area to the centroid of the nearest ZIP Code area that is served by a large store. The average distance from a large store from one of the unserved areas ranges from 1 to 2.2 miles. Notably, the distance is greater for areas with lower levels of poverty than for those with higher levels, and the maximum distance in the former areas is greater than in the latter areas.

Table V-12 Distance (in miles) of Underserved Areas To Areas With a Supermarket or Large Grocery, by Poverty Level					
Poverty Status of Area	Areas Lacking Large Stores	Mean Olstance (Miles)	Metilan Distance (Miles)	Maximum Distance (Miles)	
Less Than 2.5 Percent	123	1.70	1.47	10.40	
Between 2.5 and 4.9 Percent	217	1.98	1.65	18.00	
Between 5 and 9.9 Percent	272	2.18	1.71	20.14	
Between 10 and 19.9 Percent	152	1.94	1.56	12.74	
Between 20 and 29.9 Percent	71	1.33	1.20	4.07	
30 Percent or More	61	1.13	0.90	5.52	

Source: Authorized Food Retailers Characteristics Study: Technical Report IV, February 1997.

Chapter VI

Retailer Characteristics and Access Outside of Highly Urbanized Areas

Chapter VI. Retailer Characteristics and Access Outside of Highly Urbanized Areas

This chapter considers characteristics of retailers and access to them in areas outside of the highly urbanized areas considered in Chapter V. The areas are defined as having an urbanized population of less than 90 percent. The areas include very sparsely populated areas as well as some areas that lie within the Metropolitan Statistical Areas (MSAs). The following are examples of the range of areas within this category.

- Antelope Valley in the county of Los Angeles is a well-defined area separated from the more populated areas of the county by the San Gabriel Mountains. Two cities, Lancaster and Palmdale, form the urban core of this largely arid agricultural area. Together the cities have a population of 200,000. Palmdale, an area studied in the intensive analysis, has grown from 12,000 to close to 90,000 since 1980. It has an urbanization level near 90 percent. The population centers surrounding Palmdale (such as Little Rock, Pearblossom, and Llano) are small, with few retailers. Extensive agricultural areas surround them.
- In Kanawha County, West Virginia, the city of Charleston is the dominant population center. In 1990, Charleston had a population of approximately 58,000. A second tier of population centers runs along the south and north banks of the Kanawha River. Smaller population centers range from a few households to a few thousand residents farther away from the river in the mountains and coal mining areas.
- In Marion and Dillon Counties in South Carolina, there is a central core of very small cities and towns (ranging from a few hundred to several thousand individuals) that provide retail and commercial services. Outside of that core, the lightly populated area consists largely of farmland and cypress swamps.
- In New Mexico, Otero County provides an example of an area with a small city of approximately 30,000 persons (Alamogordo) and smaller settlements outside of the city. Those settlements, on an Indian reservation and in a resort area in the mountains to the east of the city, range from a few hundred residents to a few thousand.
- In Lincoln County, New Mexico, the major population center is Ruidoso, which lies on the southern border of the county. The northern part of the county is largely ranch land and has no notable population centers. Lincoln County is typical of many areas in the Southwest, Plains, and Mountain States that have tiny population centers unable to support even small retailers.

With the exceptions of the very remote areas, the areas described display a pattern of access in which a nearby urban place provides services to a sparsely populated area. In some cases, the urban setting is a mid-size city; in other cases it may consist of several smaller cities within a core area. In still other cases, it may be a small community or population center consisting of a few thousand people.

Chapter VI. Retailer Characteristics and Access Outside of Highly Urbanized Areas

In this chapter, we first explore sparsely populated areas that have few, if any, signs of urbanization. Operationally, we define those areas as having a level of urbanization not exceeding 10 percent. Later in the chapter we examine areas that contain urbanized populations of between 10 and 90 percent.

Sparsely Populated Areas

Sparsely populated areas include rural areas that have a very low level of urbanization. Those areas constitute approximately 64 percent of the land area of the continental United States, yet contain only 12 percent of the population. The median poverty rate in those areas approximates 15 percent. In total, 11 percent of authorized supermarkets, 18 percent of the authorized large stores (supermarkets and large groceries), and 19 percent of all authorized stores are found in such places. The next section considers the characteristics of retailers in those areas.

Retailer Characteristics

Information on retailer characteristics related to variety, availability, quality, and cost of food is provided by the survey of authorized retailers. The following analysis makes explicit comparisons between high-poverty sparsely populated areas and other sparsely populated areas.

With regard to variety, two findings are especially notable:

- First, although supermarkets offer more variety in terms of brands, package types, and assortment, large groceries come very close to providing the same level of variety. Overall, large groceries provide 5 percent less variety than supermarkets with regard to brands, package types, and assortment (Table VI-1). As indicated in previous analyses of urban areas, small groceries, convenience stores, and grocery/gasoline outlets constitute a third tier, while specialty and other stores make up the last tier in terms of providing variety.
- Stores in higher poverty areas display more variety than stores of similar store types in other areas. One notable finding is that large groceries in high-poverty areas are roughly equivalent to supermarkets in other areas. Finally, in comparison to their counterparts in highly urban areas, supermarkets offer slightly less variety but large groceries offer more variety in sparsely populated areas.
Chapter VI.

Retailer Characteristics and Access Outside of Highly Urbanized Areas

Variet	y in Brands, Pack	laging, and A by	ssortment of Store Type a	Market Baske nd Poverty Lev	t Items in Spi rel of Area	arsely Popul	ated Rural Are	as,	
Stern Door	Brands			Package Types			Assortment		
cione type	High- Poverty Areas	Other Areas	All Aroas	High- Poverty Areas	Other Areas	Ali Areas	High- Poverty Areas	Other Areas	All Areas
Supermarkets	2.04	1.83	1.85	2.21	2.08	2.09	2.46	2.35	2.36
Large Groceries	1.89	1.75	1.77	2.12	1.92	1.94	2 33	2.23	2.24
Small Groceries	0.65	0.97	0.86	0 77	1.08	0.97	0.88	1.22	1.10
Convenience Stores	0.66	0.78	0.76	0.66	0.93	0.86	0.78	1.03	0.97
Grocery/Gasoline Stations	0.69	0.84	0.81	0.92	0.95	0.94	1.02	1.05	1.04
Specialty Stores	0.07	0.33	0.30	0.13	0.42	0.39	0 20	0.56	0.52
Other Stores	0.37	0.48	0.45	0.57	0.85	0.75	0.65	0.96	0.85
All Stores	0.76	1.09	1.02	0.88	1.24	1.15	0.99	1.41	1.31

When variety across product groupings is examined, the results show that, as in highly urbanized areas, supermarkets and large groceries are the only store types that can come close to satisfying that requirement across all product groupings. Variety across product groupings is measured, as before, by the degree to which stores can provide at least 50 percent of the market basket in all product groupings, except fish (Table VI-2). All supermarkets and large groceries in high-poverty areas provide foods across all product categories, surpassing the variety provided by those store types in other areas.

Table VI-2 Percentage of Stores Providing at Least 50 Percent of the Market Basket Across Major Food Groups in Sparsely Populated Rural Ansas, by Store Type and Poverty Level							
Store Type	High-Poverty Areas	Other Areas	All Areas				
Supermarkets	100%	84%	85%				
Large Groceries	100%	76%	79%				
Small Grocerles	0%	9%	6%				
Convenience Stores	0%	2%	1%				
Grocery/Gasoline Stations	0%	1%	1%				
Specialty Stores	0%	0%	0%				
Other Stores	0%	6%	4%				

Authorized Retailers' Characteristics and Access Study 10 7

VI-3

As in other locations, supermarkets and large grocery stores in rural areas can fill a greater proportion of the market basket than other types of stores. Supermarkets and large groceries can fill 91 percent and 90 percent of market basket needs, respectively, while other stores were generally able to fill about half of the market basket (Figure VI-1).

Large grocery stores in rural areas offer almost as much selection as rural supermarkets. That finding is in contrast to the findings in the last chapter on product availability within urban stores, where large grocery stores trailed supermarkets by approximately 15 percentage points in the share of the market basket they could fill.

The other notable difference is that supermarkets and large grocery stores in high-poverty rural locations offered slightly greater product availability than stores in other rural areas. The reverse was found in urban locations: stores in high-poverty urban areas offered less availability.

Figure VI-1

Market Basket Availability in Sparsely Populated Rural Areas, by Store Type and Poverty Level



N=475

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997, Appendix C: Tables C.1

Supermarkets and large grocery stores in sparsely populated rural areas offered greater availability in high-poverty locations, which was not true of most other store types. Except for grocery/gasoline combination outlets, all other store types offered much less availability in high-poverty rural areas. When we look across all store types, those in high-poverty areas generally satisfy a smaller share of the market basket than those in other rural areas reflecting the influence of smaller stores. That advantage was maintained across all major food groups, as indicated in Table VI-3.

As in the section on urban areas, we examine availability by the extent to which foods are sold in all four staple food categories and from the standpoint of depth of shelf inventory.

by Food Group, Store Type, and Poverty Level						
Food Group	High-Poverty Areas	Other Areas				
Fresh meat	18%	38%				
Fresh poultry	10%	26%				
Fresh fish	4%	9%				
Processed meat	69%	75%				
Packaged meat	47%	55%				
Fresh produce	34%	50%				
Packaged produce	59%	72%				
Dairy products	45%	62%				
Eggs	81%	90%				
Cereals, grains	66%	82%				
Bakery products	74%	84%				
Dinner mixtures	46%	63%				
Other foods	77%	86%				
All foods	49%	63%				

With regard to the availability of food in all four staple food categories, a larger share of the stores in rural areas are found to satisfy this requirement than in urban areas (93 percent versus 84 percent). As with urban stores, the share of stores in sparsely populated regions selling all four staple food categories is similar in high-poverty and other rural areas (Table VI-4).

Table VI-4 Percentage of Food Stores in Sparsely Populated Rural Areas Selling Foods in All Four Staple Food Categories, by Store Type and Poverty Level					
Store Type	High-Poverty Areas	Other Areas			
Supermarkets	100%	100%			
Large Groceries	100%	100%			
Small Grocerles	97%	97%			
Convenience Stores	96%	100%			
Grocery/Gas Stores	0%	28%			
Specialty Stores	100%	100%			
Other Stores	63%	82%			
All Stores	90%	94%			

Indicative of the findings relating to product availability, supermarkets and large grocery stores operating in high-poverty rural areas show somewhat more shelf stocks than similar store types operating in other sparsely populated areas (Table VI-5). Depth of shelf inventory is determined by the number of households whose market baskets can be filled from available shelf stocks. The result for sparsely populated areas contrasts with findings in urban areas. Grocery/gasoline outlets operating in high-poverty rural areas also satisfy a slightly larger share of market basket requirements than their counterparts in other sparsely populated rural areas. Across all store types, however, the advantage goes the other way: stores in high-poverty areas satisfy a smaller share of market basket requirements than stores in other areas (3.3 versus 4.0 households).

As in urban stores, inferior product quality is not a notable problem in the food stores surveyed in sparsely populated rural areas. Overall, 1 percent of the food items surveyed are of unacceptable quality (compared to 2 percent in urban areas). Fresh produce, a product grouping particularly susceptible to problems of quality in urban areas, again shows the highest degree of unacceptability in rural areas. Only 7 percent of the fresh produce are unacceptable in the stores in rural areas. In those areas, small grocery stores have the highest incidence of problems with quality (Table VI-6). There is no indication in the sparsely populated rural locations that the quality of the food (as measured in the analysis) is associated with the poverty level of the area.

VI-6

Chapter VI.

Retailer Characteristics and Access Outside of Highly Urbanized Areas

Average Number of Households Whose Market Basket Requirements Are Met by Stocks in Sparsely Populated Areas, by Store Type and Poverty Level						
Store Type	High: Poverty Areas	Other Arees				
Supermarkets	8.7	7.3				
Large Grocerles	8.1	6.4				
Small Groceries	3.0	3.3				
Convenience Stores	3.4	2.9				
Grocery/Gas Stations	2.1	2.9				
Specialty Stores	. 0.6	0.9				
Other Stores	2.4	2.8				
All Stores	3.3	4.0				

••

Pe	rcentage of Se In Si by I	Table lected Food I servely Popul Store Type an	wise and Rural A d Powerty L	complaible Qa stasse evel	nility	
	Fresh Mer		Fresh Produce		All Poonts	
Store Type	High- Poyety Areas	Citiwer Armine	High- Powerty CAreas	Other Areas	High- Poverty Areas	Citier Anus
Supermarkets	0%	2%	2%	3%	0%	1%
Large Groceries	0%	2%	4%	4%	1%	1%
Small Groceries	0%	33%	9%	12%	2%	3%
Convenience Stores	-	-	16%	8%	1%	1%
Grocery/Gas Stations	0%	0%	8%	11%	1%	1%
Speciality Stores	-	-	-	0%	1%	-
Other	-	-	1%	4%	1%	1%
All Stores	0%	4%	7%	7%	1%	1%

Dashes represent instances containing too few instances of items. Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997, Appendix C: Table C.6

111

Averaged across all stores surveyed, the cost of our market basket in sparsely populated rural areas was 10 percent less than the cost of the same market basket in urban areas (Table VI-7). However, that result reflects the lower prices in sparsely populated areas in stores other than supermarkets. Supermarkets are 4 cents on the dollar more expensive in sparsely populated rural areas.

Among supermarkets in sparsely populated rural areas, those in high-poverty areas have a market basket cost approximately 11 percent lower than the cost of the market basket in supermarkets overall. Costs in large groceries in high-poverty areas are 12 percent less than supermarkets in other areas and close to 19 percentage points less than large groceries in other areas. It should be noted that costs in large groceries and supermarkets in high-poverty areas are nearly identical.

When redemptions are factored in, some reduction in cost is seen. However, it occurs mostly in areas other than high-poverty sparsely populated areas. For instance, the cost of a market basket in supermarkets in other sparsely populated areas declines by about 8 percentage points.

Store-E	lased and Reden) by	Store Type a Store Type a (Supermi	Set Indices in and Poverty L arkets #1.90)	Sparsely Pop evel	oulated Areas	•
Store Type		tore-Based Cos	ta i	Red	emption-Based	Costs
	High- Proverty Acres	Other Areas	All Areas	High- Poynety Areas	Other Arsas	All Amas
Supermarkets	0.89	1.01	1.00*	0.89	0.92	0.91
Large Groceries	0.88	1.07	1.05	0.87	1.00	0.98
Other Stores	1.26	1.29	1.23	1.23	1.24	4.23

Overall, food stores in rural areas offer slightly fewer full-service departments and a somewhat larger number of lines of nonfood products than stores in urban areas. Within sparsely populated rural areas, stores located in areas of high poverty had fewer full-service departments and fewer lines of nonfood products than those stores located in other sparsely populated areas (Table VI-8). However, among supermarkets and large grocery stores in rural locations, to the extent that any difference exists, the measures run slightly in favor of the stores in high-poverty areas.

VI-8

Average Number of Full-Service Departments and Average Number of Nonfood Product Lines Sold in Stores In Sparsely Populated Rural Areas, by Store Type and Poverty Level								
Store Type	Average Number of Full	-Service Departments	Average Number of Nonfood Product Line					
	High-Poverty Areas	Other Areas	High-Poverty Areas	Other Areas				
Supermarkets	2.2	2.1	9.3	9.4				
Large Groceries	1.3	1.3	9.2	8.5				
Small Groceries	0.2	0.7	6.9	7.6				
Convenience Stores	0.3	0.4	6.8	9.3				
Grocery/Gas Stations	0.2	0.4	8.6	9.4				
Specialty Stores	0.5	1.3	0.5	0.5				
Other Stores	0.2	0.6	5.5	7.2				
All Stores	0.4	0.9	7.1	8.3				

To summarize, in sparsely populated areas there were similarities between supermarkets and large groceries in variety, availability, quality, and costs. The two types of stores differed from other, smaller stores in those characteristics. In general, supermarkets and large groceries in high-poverty areas provide as much variety and availability as stores in other areas, if not more. In addition, costs were generally lower in stores in sparsely populated high-poverty areas. It must be noted, however, that the distinction between a store's location and the population it serves may not be totally correlated in sparsely populated areas, because we would expect people in those areas to travel to meet their food needs, regardless of the income level of the area in which they resided.

Accessibility of Stores in Sparsely Populated Areas

To gain insight into the accessibility of FSP-authorized food stores to participants who live in sparsely populated rural areas, information was collected in three quite different rural locations: Boone County, West Virginia; Dillon and Marion Counties, South Carolina; and Otero and Lincoln Counties, New Mexico. Each of those areas has a large low-income population and a rate of participation in the FSP that ranged from approximately 15 percent in the New Mexico area to 25 percent in the West Virginia study area. The West Virginia site is representative of the core of Appalachia—high poverty (27 percent), high unemployment (16 percent), low minority population (1 percent), and a population decline of 15 percent between 1980 and 1990. Although Boone County is adjacent to the

VI-9

Charleston MSA, the population is scattered among numerous small towns and hollows. As Figure VI-2 suggests, the majority of the population lives more than one mile from a larger retailer outside the Charleston area. In particular, the sparsely populated areas in the southeast area of Boone County are located outside that radius. There are a few larger stores scattered throughout the area, but their distance to food stamp households is measurable in miles, rather than in fractions of a mile.

The two-county area in South Carolina, which lies along the State's border with North Carolina, is larger and more agrarian than the West Virginia study area. The rate of poverty is nearly as high (25 percent), and it too declined slightly in population between 1980 and 1990. The low-income population of the area is concentrated in and around the four largest communities (ranging from 2,000 to 7,500 in population), with 82 percent of FSP participants residing in those locations. Figure VI-3 shows that most FSP households live in the core area, where almost all of the larger retailers are found. Individuals in the more sparsely settled areas do have access to smaller stores but must travel to the core area to reach a larger retailer.

The site in New Mexico represents a vast, sparsely populated area that includes a large military installation and an Indian reservation. The population density of this area is less than one-tenth that of the West Virginia site. Although the overall poverty rate for this two-county area is lower (17 percent) than that of the West Virginia and South Carolina sites, there are pockets (including the Indian reservation) where the rate of poverty exceeds 50 percent. Figure VI-4 indicates that households living to the east of Alamogordo and to the north of Ruidoso have less access than other households. These two populated areas seem to draw shoppers from the less sparsely populated ones.

In each of these areas, a very restrictive definition of proximity was used; however, the analysis suggested that there are individuals living outside the population centers who may have poorer access and thus travel to the nearest population center to do their shopping.

Underserved Sparsely Populated Areas

Of the ZIP Code areas identified as underserved, approximately four-fifths are found in sparsely populated areas. Table VI-9 presents a breakdown of those rural areas by poverty level. The data indicate that those underserved areas generally have a poverty rate of less than 20 percent, the level we have set to designate high-poverty areas. Thirty percent of those underserved areas have poverty rates of less than 10 percent, while only 3 percent have poverty rates of 30 percent or more. Most of the areas have poverty levels between 10 and 20 percent. When compared to the distribution of all sparsely populated areas, whether or not authorized retailers are present, underserved areas tend to be located in areas with lower poverty rates.







Authorized Retailers' Characteristics and Access Study //



Authorized Retailers' Characteristics and Access Study

VI-13

117

With regard to sparsely populated rural areas lacking supermarkets or large groceries, the data indicate that the highest concentrations of underserved areas have poverty rates between 10 and 20 percent. About one-quarter of the areas with poverty rates of 20 percent or more do not have a larger store. That is to be expected, because large stores may not find an adequate customer base in rural areas, regardless of the poverty level of the area. That conclusion is borne out by the overall distribution of rural areas, which is not significantly different from areas lacking large stores.

The information on rural sparsely populated areas indicates that although they may not represent a large proportion of the areas lacking authorized retailers, they may encompass high-poverty underserved areas.¹ Two scenarios are suggested. First, areas may be isolated (either by distance or by geographic barriers) from places that could supply them with basic food necessities. The second scenario relates to places, though rural, that do have access to some shopping areas within a reasonable distance. Of course, the definition of reasonable distance can vary considerably, but in many rural areas, drives of an hour or so may be acceptable. Some information about access patterns in such areas may be extracted from our intensive analysis of retailer access in several different geographic areas.

Poverty Rate of Area	Arnes Lacel	ng Retallers	Areas Castling Large Stores		Total Areas	
	tu.	Pat	No.	Pct.	No.	Pet
Less Than 2.5 Percent	114	2.9%	178	1.7%	221	1.3%
Between 2.5 and 4.9 Percent	181	4.7%	334	3.1%	528	3.2%
Between 5 and 9.9 Percent	882	22.7%	2,008	18.8%	3,116	19.0%
Between 10 and 19.9 Percent	1,999	51.5%	5,270	49.3%	8,137 -	49.5%
Between 20 and 29.9 Percent	543	14.0%	2,107	19.7%	3,249	19.8%
30 Percent or More	160	4.2%	800	7.4%	1,173	7.2%
Total Rural Areas	3,879	190.0%	10,697	100.0%	16,424	100.09

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

Authorized Retailers' Characteristics and Access Study //8

¹ We use the word "may" here to indicate that some measurement error is involved in using ZIP Code areas as a unit of analysis. Measurement error may reflect errors in reporting ZIP Codes by retailers, algorithms used to map nonresidential ZIP Codes to residential areas, and ZIP Code boundary problems (i.e., a boundary problem is typified by a retailer identified with a particular mailing code being more accessible to shoppers in an adjoining ZIP Code than in their own ZIP Code).

In our intensive analysis of sites in Antelope Valley, we found two areas (as defined by their ZIP Code areas) that contained food stamp recipients but no food stores. Llano had a population of 79 households receiving food stamps in February 1994. With a poverty rate of 14.1 percent, they would fit into the second poverty-level scenario. Valyermo has a population of about 1,400 people and has only three food stamp recipients—despite having a poverty rate of 12.7 percent. Analysis of redemption data showed that those recipients were likely to use the large retailers in nearby Pearblossom and Palmdale for food shopping.

In south central New Mexico, we found several relatively high-poverty areas that have no authorized retailers. In Lincoln County, New Mexico, five ZIP Code areas were defined as having no authorized retailers. These are the areas of Lincoln, Glencoe, Nogal, Tinnie, and San Patricio. The poverty rate in the latter two areas is greater than 30 percent, but it is under 20 percent in the former three areas. San Patricio and Nogal are the largest areas, with 500 and 300 persons, respectively. The other areas have less than 200 individuals. In all sites, we were able to account for only 41 food stamp cases. The majority of the county's population is located along the southern border of the county with access to the population center of Ruidoso, which contains several larger stores and attracts customers from the Mescalero Apache Indian Reservation in northwest Otero County.

From those examples, and from our analysis of Dillon and Marion Counties in South Carolina and Kanawha and Boone Counties in West Virginia, it can be concluded that access for the few low-income households

participating in the FSP centered on the small towns in their areas. In Lincoln County, the focus was on Ruidoso. Also, supermarkets and larger stores in Alamogordo in adjoining Otero County were also available, although more distant. In the Antelope Valley area of Los Angeles County, shopping seemed to take place at the larger stores in Palmdale and Lancaster. There were a few underserved areas in the South Carolina and West Virginia study areas, but population centers within the counties provided access to large-scale retailers.

Thus, in many rural areas, county seats or the larger population centers within the county seem to provide access to larger stores. Of the total number of areas that lack a larger authorized retailer, 133 areas do not have large stores (but do have smaller stores) and lack a large retailer within their county.

State	No. of Counties
California	1
Colorado	3
Georgia	3
Idaho	1
Kansas	2
Mississippi	1
Missouri	1
Montana	5
Nebraska	10
Nevada	3
New Mexico	2
North Carolina	1
North Dakota	3
Oregon	1
South Dakota	1
Texas	11
Utah	3
Virginia	2

Locations of Counties Without Large Retailers

Authorized Retailers' Characteristics and Access Study //9

Those areas are in 54 counties spread across 18 States, largely clustered in the Plains, the Mountain States, and the Southwest. Texas and Nebraska seem to be particularly underserved. In our analysis, we noted that many of the counties are adjacent to an MSA and have access to stores in those urban areas.

In conclusion, although some sparsely populated areas contain supermarkets or large groceries, there is evidence that those larger stores are more available in urban areas ranging from small towns to medium-sized cities, which we will now examine in more detail.

Populated "Mixed" Centers Outside of Highly Urbanized Areas

In a companion study of nine areas, two key findings were identified.² First, most-FSP households in largely rural areas live in or close to population centers. Second, for low-income individuals living in the sparsely populated sections of the area, the populated centers seemed to provide access to larger food retailers. In this part of the analysis, we focus on those areas in terms of both residents living in the area and those in the outlying places. Those mixed population centers include mid-size cities that may constitute the central city in a small MSA, smaller cities in non-MSA areas, and towns and small population centers with a few thousand individuals. They represent 31 percent of the population and 32 percent of an area of the contiguous 48 States. They also contain 48 percent of the authorized supermarkets, and 33 percent of all authorized stores. In the following analyses, we denote those areas as mixed because they represent a blending of urban and rural characteristics.

Retailer Characteristics

As in other sections, we assess the degree to which retailers in high-poverty and other lower-poverty areas can provide a variety of selected quality foods at reasonable costs.

In mixed areas, supermarkets in high-poverty areas display a slightly greater degree of variety than supermarkets in other areas (Table VI-10). They also demonstrate a higher level of variety than supermarkets in sparsely populated areas. As in urban areas, large grocery stores in mixed areas do not match the variety present in supermarkets but they offer significantly more variety than other stores. Large groceries show slightly less variety in mixed high-poverty areas than in other mixed areas. More than 90 percent of the supermarkets in mixed areas provided items across the market basket. About two-thirds of the large grocery stores could do so (Table VI-11). In a comparison of high-poverty areas to other areas, the results show that supermarkets and large groceries in high-poverty areas were better able to supply foods across the various product groupings than stores in other mixed areas, although among other stores, the opposite situation prevailed.

Authorized Retailers' Characteristics and Access Study 120

² U.S. Department of Agriculture, Office of Analysis and Evaluation, Food and Consumer Service, Authorized Retailers Characteristics Study: Technical Report IV, Geographic Analysis of Retailer Access, by R. Mantovani and J. Welsh (Washington, D.C., February 1996).

Chapter VI.

Retailer Characteristics and Access Outside of Highly Urbanized Areas

Variety in Brands, Packaging, and Assortment of Market Basket Items in Mixed Areas, by Store Type and Poverty Level of Area									
	Brands			Package Types			Assortment		
auvre type	High- Poverty Areas	Other Areas	All Areas	High- Poverty Areas	Other Areas	All Areas	High- Poverty Arees	Other Areas	All Areau
Supermarkets	2.10	2.02	2.30	2.37	2.28	2.29	2.65	2.59	2.59
Large Groceries	1.49	1.58	1.56	1.61	1.79	1.76	1.87	2.04	2.01
Small Groceries	0.62	0.79	0.73	0.72	0.88	0.83	0.80	1.00	0.93
Convenience Stores	0.62	0.74	0.72	0.75	0.88	0.86	0.97	0.95	0.78
Grocery/Gasoline Stations	0.66	0.83	0.81	0.79	0.99	0.97	1.10	1.07	1.02
Specialty Stores	0.22	0.25	0.25	0.28	0.30	0.30	0.37	0.42	0.41
Other Stores	0.42	0.45	0.44	0.49	0.52	0.51	0.60	0.60	0.65
All Stores	0.76	0.98	0.94	0.89	1.13	1.08	1.01	1.27	1.23

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997, Appendix C: Tables C.2-C.5

	Table VI-11							
Percentage of Stores Providing at Least 50 Porcent of the Market Basket Across Major Food Groups in Mixed Areas,								
by Store Type and Poverty Level								
Store Type	High-Poverty Areas	Other Areas	All Areas					
Supermarkets	100%	91%	92%					
Large Grocerles	67%	62%	63%					
Small Groceries	0%	5%	3%					
Convenience Stores	0%	0%	0%					
Grocery/Gasoline Stations	0%	0%	0%					
Specialty Stores	0%	0%	0%					
Other Stores	5%	6%	6%					

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997. Appendix C: Table C.1

Product availability in food stores in mixed areas falls between the levels found in stores in urban areas and rural areas. On average, excluding the variables of store type and poverty level, stores in those mixed areas satisfy 54 percent of the market basket (compared to 52 percent in urban areas and 60 percent in rural areas). As in the other areas, supermarkets satisfy the largest share of market basket needs, followed closely by large grocery stores. Other types of food stores followed, at a greater distance (Figure VI-5).

Overall, stores in the high-poverty areas satisfied a smaller share of the market basket (47 percent versus 56 percent). However, that relationship is not uniform among store types (Figure VI-5). Among supermarkets, stores in high-poverty areas demonstrate slightly greater availability, and for large grocery stores, the level of product availability is essentially the same in high-poverty areas as in other areas.

Figure VI-5

Market Basket Availability in Mixed Areas, by Store Type and Poverty Level



N=839

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, Febraury 1997. Appendix C: Table C.1

Stores in mixed high-poverty areas tend to demonstrate less availability across most food categories (Table VI-12). The difference varies by food No significant group. difference is observed between high-poverty areas and other areas regarding the sale of foods in all four staple food categories. All supermarkets, large groceries, and grocery/ gasoline outlets in mixed locations, regardless of area income. satisfy that requirement.

Assessing the shelf stocks in mixed areas (as measured by the number of households whose market basket could be met from available shelf stock) reveal a pattern similar to that found in rural areas (Table VI-13). That is, considering all store types in combination, stores in high-poverty areas can satisfy a smaller share of shoppers' needs (3.1 versus 3.6 households). However, for supermarkets and large grocery stores, the reverse is true. Stores in high-poverty areas can fill a larger share of the shoppers' requirements than stores in other areas.

As in urban and rural areas, most foods examined in stores in mixed areas are found to be of acceptable quality. On average, 2 percent of the items are judged inferior due to damage or lack of freshness

Table VI-12 Availability of Foods in Mixed-Area Food Stores, by Food Group and Poverty Level, for All Store Types (Percent of Market Basket)							
Food Group	High-Poverty Areas	Other Arsas					
Fresh meat	23%	30%					
Fresh poultry	15%	24%					
Fresh fish	10%	15%					
Processed meat	80%	66%					
Packaged meat	41%	47%					
Fresh produce	35%	39%					
Packaged produce	56%	62%					
Dairy products	40%.	54%					
Eggs	70%	80%					
Cereals, grains	62%	73%					
Bakery products	62%	78%					
Dinner mixtures	38%	53%					
Other foods	73%	79%					
All foods	47%	56%					

N=839

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997, Appendix C: Table C.1

	Tablet VI-13									
Average Number of Bouseholds Whose Market Basket Requirements Are Met in Mixed Areas, by StoreType and Powerty Level										
Store Type	High-Povedy Actas	Other Areas								
Supermarkets	8.4	8.0								
Large Groceries	6.7	6.0								
Small Groceries	2.5	2.7								
Convenience Stores	2.5	2.6								
Grocery/Gasoline Stations	2.2	2.8								
Specialty Stores	1.0	0.9								
Other Stores	· · 1.7	1.7								
All Stores	3.1	3.6								

Source: Authorized Food Retailer Characteristics Study: Technical Repo IV, February 1997, Appendix C: Table C.17

123

(Table VI-14). As in the other areas, there was no evidence that the incidence of inferior products is higher in high-poverty areas. On the contrary, among large grocery stores, the incidence of problems with fresh meat and fresh produce (the two food categories most affected by lack of freshness) is somewhat smaller in the high-poverty areas.

Table VI-14 Percentage of Selected Food Items in Mixed-Area Stores Found To Be of Unacceptable Freshness, by Store Type and Poverty Level										
Store Type	Freeh	Mont	Freeh P	roduce	All F	aboo				
	High-Poverty Areas	Other Areas	High-Poverty Areas	Other Araza	High-Poverty Areas	Other Areas				
Supermarkets	1%	1%	4%	4% 3% 0% 11%	1%	1% 4%				
Large Grocerles	0%	9%	0%		3%					
Small Groceries	-	-	10%	17%	3%	3%				
Convenience Stores	-	-	17%	8%	2%	1%				
Grocery/Gas Stations	-	-	-	-	4%	2%				
Specialty Stores	es -		-	-	1%	0%				
Other Stores	-	-	12%	6%	1%	3%				
All Stores	2%	2%	11%	8%	2%	2%				

In mixed areas, supermarkets are found to have the lowest cost of any store type. Grocery stores, on average, are 15 cents on the dollar more costly, and other authorized stores are 44 cents more costly (Table VI-15). For supermarkets, market basket costs are 5 percent lower in stores in high-poverty mixed areas than in similar stores in other mixed areas. Hardly any difference is found between large grocery stores in high-poverty mixed areas and similar stores in other mixed areas. Other authorized stores are less costly in high-poverty areas than in other areas.

When redemption-based costs are factored in, it appears that food stamp households reduce their costs by selecting less costly stores. That practice is particularly evident in the case of large grocery stores, where the cost index drops 8 percentage points in high-poverty areas and 14 percentage points in other mixed areas.

Chapter VI.

Retailer Characteristics and Access Outside of Highly Urbanized Areas

	Store and Redemption	on-Based C y Store Typ (Super	ost Indices fo e and Poverty narkets =1.00	or Stores in Mix y Level)	ed Areas,			
Store Type	Stor	e-Based Cost		Redemption-Based Costs				
	High-Poverty Areas	Other Areas	All Areas	High-Poverty Areas	Other Areas	All Arous		
Supermarkets	0.95	1.00	1.00*	0.95	0.98	0.97		
Large Groceries	1.16	1.15	1.15	1.08	1.01	1.03		
Other Stores	1.38	1.46	1.44	1.33	1.28	1.30		

As we found in both urban and rural areas, stores in the high-poverty populated areas tend to offer their customers fewer full-service departments as well as a narrower range of nonfood product lines. Still, the differences are usually small, as can be seen in Table VI-16, and are sometimes in favor of the stores in high-poverty areas.

Average Numbe	e of Full-Service Departm S by Sta	Table VI-16 Insta and Average No Iores in Miked Areas ine Type and Poverty	imber of Nanfood Produ Level	st Lines Sold in
Store Type	Avarage Manuber of Full-	Service Departments	Average Number of No	nfood ProductLinus
	High-Powerty Areas	Other Arena	High-Poverty Areas	Other Areas
Supermarkets	2.7	3.0	10.2	10.2
Large Groceries	1.0	1.3	9.0	8.7
Small Groceries	0.5	0.6	6.1	6.7
Convenience Stores	0.3	0.2	8.2	8.0
Grocery/Gas Stations	0.4	0.3	8.9	9.2
Specialty Stores	1.1	1.0	1.2	0.8
Other Stores	0.5	0.6	4.2	3.7
All Stores	0.7	1.0	6.9	7.6

In general, the results in this section mirror those described in other sections. Differences between types of areas show that larger stores in high-poverty areas provide service that is equivalent to that found in larger stores located in other areas.

Accessibility

Because of the wide range of places described within this category, we will describe three tiers of accessibility. The first tier is represented by areas with a central city that serves as a base for an MSA. The second are smaller non-MSA areas with more than a third of their population in urban areas. The final tier includes places in which 10 percent to 33 percent of the population is located in urban areas.

Accessibility in Mixed Areas—In the intensive site analysis, three areas outside of highly urbanized areas include: Charleston, West Virginia; Dona Ana County, New Mexico; and Palmdale, California. Findings of the intensive area analysis, as summarized in Table VI-17, reveal different patterns of accessibility among these three areas. The figures presented in the table relate to the region. Numbers in parentheses pertain to distances and other information for the city. Charleston, West Virginia, with its relatively high population density, is a center of commerce for the surrounding region, including food retailing. As a result, residents of Charleston are relatively close to authorized food stores, including supermarkets. They have better access than people living elsewhere in Kanawha County or in adjoining Boone County (one of the rural areas examined in the previous section). For example, although 78 percent of participants in Charleston are within a mile of a supermarket, only 43 percent of participants living elsewhere in Kanawha County and in Boone County are within that range.

The Palmdale area offers accessibility similar to that in Charleston, although there were fewer larger stores and shoppers had to travel slightly further to reach a supermarket.

Accessibility in Dona Ana County, New Mexico, was notably inferior than in the other study areas. The county represents a much larger, more sparsely populated area (35 people per square mile, compared to 230 in Kanawha County, West Virginia). Las Cruces is the largest city in Dona Ana County and accounts for 46 percent of the county's 135,500 people. A majority of the residents (55 percent) are Hispanic; in 1990, a quarter of the population was poor. The county includes 33 colonias (undeveloped subdivisions lacking in basic public amenities), which house 22 percent of the county's population. Outside Las Cruces, the principal population center, there were no supermarkets within five miles of participants, and few large grocery stores. Thus, while 75 percent of all food stamp participants living in Las Cruces were within 2 miles of an authorized supermarket or large grocery store, elsewhere in Dona Ana County the share of participants with that degree of access fell to 34 percent. Though the urban portions of this area enjoy a relatively high degree of access, participants living in more remote areas and in isolated areas of concentrated poverty have appreciably less access.

Of the areas lacking any authorized retailers, only a quarter is in areas with poverty levels exceeding 10 percent, and less than 3 percent are in areas that have poverty rates exceeding 20 percent. Of the areas lacking a larger retailer, 35 percent are in areas that have poverty rates exceeding 10 percent, and 7 percent have poverty rates exceeding 20 percent. Areas without any authorized retailer are likely to be located in more affluent areas.

	Table	VI-17			
Proximity o Pr	f Authorized Food : ogram Participants	Stamp Retailers In Three Mixed	to Food Sta Areas	mp	
Proximity to Food Stores	Kanawh Counties,	s and Boone West Virginis*	Dome A New	ne County, Mexico*	Pelmósie, Califórnia*
	Pct. In Counties	PcL in Charleston	PcL In County	Pol. In Las Gruces	Pct. In Area
Participants within .25 mile of Supermarket Supermarket or large grocery Any authorized food store	13% 16% 54%	16% 19% 59%	2% 3% 50%	3% 3% 34%	4% 17% 31%
Participants within .5 mile of Supermarket Supermarket or large grocery Any authorized food store	31% 39% 75%	41% 50% 84%	8% 12% 68%	14% 14% 57%	19% 38% 56%
Participants within 1.0 mile of Supermarket Supermarket or large grocery Any authorized food store	60% 69% 91%	78% 84% 96%	29% 44% 88%	51% 51% 88%	72% 76% 64%
Supermarkets and large grocery as Share of stores Share of redemptions Median distance (miles)	23% 91% .60	22% 92% .50	30% 76% 1.23	18% 83% .93	36% 94% 0.57

Source: Authorized Food Retailer Characteristics Study: Technical Report IV, February 1997.

Table VI-18 presents data on the distances between areas that are unserved by a larger retailer and other areas containing a large retailer (by poverty level). Although the mean distance varies positively with poverty rate, which reflects the fact that a few areas are relatively distant from an area with a large store. However, the median distance remains relatively stable (between two and three miles), except for the five areas that have very high levels of poverty. The major areas represented all had large stores that were part of retail centers drawing from the surrounding countryside. However, that degree of access does not seem to be a problem for most of the areas in this urbanization category.

	by Pover	y Lavel			
Poverty Rate of Area	Ro, of Areas Lacking Authorized Retailers	Mean Distance (In Miles)	Median Olstance (in Stiles)	Maximum Distance (In Miles)	
Less Than 2.5 Percent	43	2.57	2.10	10.04	
Between 2.5 and 4.9 Percent	82	3.22	2.84	11.56	
Between 5 and 10 Percent	92	3.54	2.69	36.97	
Between 10 and 20 Percent	91	4.89	2.99	27.99	
Between 20 and 30 Percent	20	5.89	2.49	27.93	
30 Percent or More	5	8.90	7.67	16.68	

Smaller Cities in Non-MSA Areas—Of the 212 areas lacking authorized retailers within this urbanization stratum, 32 percent are in areas where the poverty rate exceeds 10 percent and another 10 percent are in areas where the poverty rate exceeds 20 percent. With regard to the 609 areas unserved by a large store, 51 percent are in areas where the poverty rate exceeds 20 percent. Table VI-19 shows that both mean and median distance from retailers increases with level of poverty. The median distances range from three miles in areas with a low poverty rate to almost seven miles in the areas of highest poverty.

Perhaps the best example of places in that range is in the communities stretching from Marmet to Montgomery on the south side of the Kanawha River below Charleston, in the West Virginia study area. That stretch, approximately 25 miles along the river, contains several small communities that have food stores, but only two have a large grocery. The

128

communities that have large groceries are located at the extreme ends of the stretch, and although shoppers can cross the river, the distance to a large grocer can vary from less than a mile to 12 miles.

Another scenario arises in the South Carolina study area, where most of the larger population centers (ranging from two to five thousand persons) have urbanization levels approximating 40 percent. In Dillon, almost 99 percent of the food stamp participants are within a mile of a large store; in Marion, approximately 94 percent are. On the other hand, there is one area with the same degree of urbanization that does not have an authorized supermarket or large grocery and is located several miles from the cities that do. Thus, it would appear that the distance to larger retailers varies considerably within those areas.

Table VI-19 Distance to Next Nearest Large Store in Mixed Small-City Areas, by Poverty Level										
Powerty Rate of Area	No. of Unserved Areas	Mosen Olesance (in Miles	Median Distance (is Miles)	Maximum Distance (In Miles)						
Less Than 2.5 Percent	40	3.45	2.91	16.84						
Between 2.5 and 4.9 Percent	82	3.47	3.19	9.73						
Between 5 and 10 Percent	176	4.79	4.00	45.77						
Between 10 and 20 Percent	211	6.91	5.31	42.74						
Between 20 and 30 Percent	70	6.44	5.18	30.87						
30 Percent or More	25	8.34	6.94	22.65						

Source: Authonized Food Retailer Characteristics Study: Technical Report IV, February 1997.

Small Towns and Rural Population Centers—Of the 218 unserved areas within this category, 51 percent are in areas where the poverty rate exceeds 10 percent and 11 percent are in areas where the poverty rate exceeds 20 percent. Of the 653 areas that are unserved by large retailers (supermarkets or large groceries), 59 percent are in areas where the poverty rate exceeds 10 percent and 18 percent are in areas where the poverty rate exceeds 20 percent. The latter distribution proves to be insignificant when tested against the distribution of places within the area. That fact shows that the poverty level of the area does not influence location for large stores.

Boone County, West Virginia, exemplifies the category. It contains numerous hamlets located along the highways and in the secondary roads in this mountainous nonfarming rural area. Most of the area has been devoted to coal mining and most of the hamlets have a small store. However, the large stores are found in Madison and Danville (very small

cities), or in a few other locations throughout the county. It appears that the larger stores in Madison draw from the surrounding areas, and the smaller stores supplement the larger stores. In many cases, it is 8 miles to a large retailer; from some communities, it is 20 to 30 miles to Madison, and a supermarket.

The model that describes one or more locations within a county having importance in providing large-scale food retailing service seems appropriate. As in rural areas, we attempted to discern whether any area in this urbanization level and unserved by a large retailer lacks access to a large retailer within the county. The analysis showed that there were no such areas.

Appendix A

4

Sampling Procedures

Respondent Universe

The respondent universe is composed of 207,000 authorized retailers, except for those located in Alaska, Hawaii, and U.S. territories. Classes of retailers not included in the frame are wholesalers and military commissaries. The nationally representative sample is composed of 2,520 retailers.

Sample Design

The sample design provides national estimates on retailer access and service characteristics. A three-stage sampling design was developed, with the first stage involving the selection of 40 Primary Sampling Units (PSUs) within strata defined by region and by a variable for urban status. The selection of PSUs was proportional to the number of retailers in the areas. Within each PSU, we selected about 21 Secondary Sampling Units (SSUs) through Probability Proportional to Size (PPS) procedures. Finally, a minimum of three retailers was selected in each SSU. The total number of retailers selected totaled 2,520.

Assumptions and Design Considerations

Sampling Frame. Authorized food retailers, which are stores that can accept and redeem food stamps, include establishments ranging from large supermarkets to small "mom-and-pop" outlets. Overall, there are approximately 207,000 authorized retailers located in the 50 States and all of the territories. An analysis of retailers, performed under this contract, suggested that the frame should be defined with the following inclusions and exclusions:

- The frame includes only retailers located in the contiguous 48 States. Alaska, Hawaii, and the territories present unique market situations in terms of the prices or availability of food, access to retailers, and diets of residents. Those areas are viewed as outliers that may affect the overall estimates provided by the study and are therefore excluded from the frame.
- Only places selling food for consumption at home were included in the frame. Places authorized to provide meal services to food stamp participants are excluded.
- Two types of retailers were excluded from the frame, namely:

Military commissaries—Excluded because of their focus solely on a certain class of food stamp recipients.

Authorized Retailers' Characteristics and Access Study

Appendix A

Wholesalers—Excluded because of the unique nature of their business. (Operationally, this group was defined as authorized retailers that indicated "WH" as the store type on the application.)

Furthermore, only stores that were present in the frame and operational when the survey began were used in the study. We excluded stores that were out of business during the survey period.

Optimum Design Strategy. The sampling approach was designed to provide national-level estimates on a variety of characteristics of service and of access to authorized food stamp retailers. Various multistage sampling approaches were examined in terms of providing unbiased and efficient estimates under a set of fixed cost constraints. The strategy was aimed at deriving an optimal design that took into account (1) expected values of homogeneity across various levels of sampling units and (2) costs per unit of administering the survey at the various levels. That optimization strategy was constrained by certain administrative considerations of timing of data collection and of training.

Multistage Probability Design. A three-stage probability design was derived within the context of the optimum design strategy. The first stage consists of selecting 40 PSUs from the universe of PSUs with PPS—size defined as the number of authorized retailers. Within the selected PSUs, SSUs were formed using ZIP Code areas, combinations of such areas, or subareas. The SSUs were selected with PPS, without replacement, but allowing SSUs larger than the sampling interval to be sampled more than once. Three stores were sampled for each time an SSU was selected.

The number of strata, the number of SSUs per sample PSU, and the average number of stores in each ultimate cluster were jointly determined by variance and costs functions that generate an optimum allocation of survey resources over all stages within a fixed total cost.

Authorized Retailers' Characteristics and Access Study

The variance and cost functions are respectively represented as follows.

$$V_r^2 \doteq \frac{V^2}{m\overline{n}\,\overline{q}} \left[\sigma_1 \overline{n}\,\overline{q} + 1 + \sigma_2 \left(\overline{q} - 1\right)\right]$$

$$C=C,m+C,mn+C,mnq$$

where:

 V_r^2 =Relvariance of a survey estimate V_r^2 =Universe unit relvariance m=Number of sampled PSUs \overline{n} =Average number of SSUs selected per sample PSU \overline{q} =Average size of ultimate cluster per sample PSU σ_1 =Within-PSU measure of homogeneity σ_2 =Within-SSU measure of homogeneity C=Total variable costs for all strata C_1 =Average cost per sample C_2 =Average cost per sample SSU C_4 =Average cost per sample retailer within a sample SSU

The values of C_1 , C_2 , C_4 , V^2 , σ_1 , and σ_2 were estimated through careful consideration of the cost elements involved in performing the survey, as well as the likely degree of homogeneity of important study variables within the various stages of the sampling process. The total variable (or volume-related) cost was established within the constraints imposed by the study budget. These estimates yielded 40 PSUs, 21 SSUs per sampled PSU, and a minimum of three sampled stores per SSU.

Authorized Retailers' Characteristics and Access Study

Sample Selection Procedures

The representation of sampled retailers provides national-level statistics on authorized retailers' characteristics. The approach includes the following features:

- Selection of retailers in a sample with overall equal probabilities
- Definition of a PSU as one or more intact counties determined largely by the number of authorized stores, the area, and the shape of the area
- Stratification of PSUs so that each stratum has approximately the same number of authorized retailers—with strata defined by the degree to which the PSU can be classified as an urban or rural area, and by the region of the country
- Definition of SSUs to include a minimum number of stores and to address travel and heterogeneity concerns

Defining PSUs at the National Level. PSUs were formed from one or more intact counties. There are several interacting factors that are critical for assembling the PSUs. First, PSUs should be sized to allow data collectors to operate efficiently within a PSU without overly consuming all d budgets for per diem expenses. Size of the PSU should be determined, in part, by a travel distance constraint—measured as the distance from the data collector's base of operations to the various data collection areas (SSUs) within the PSU. Although we expect some "overnight" stays to occur, the construction of the PSUs was aimed at minimizing them. Ideally we would identify a contiguous area of about 2,500 square miles for a PSU. However, we might expect that in some areas, the PSU will approach 10,000 square miles. If we consider PSUs that are roughly circular, the travel distance from the center of the PSU to its outer limits would be just over 28 miles in the former case and just over 56 miles in the latter. The latter distance was used to constitute a limit to determining whether the data collector stays overnight in the data collection area.

Second, the definition of the PSUs ensured a minimum set of authorized stores to enable us to select a sample of stores with equal overall probabilities. Identifying PSUs with a minimum of 160 or more retailers should satisfy that goal. However, it is recognized that a PSU containing an absolute minimum of 63 to 65 retailers should provide the sample size needed for a self-weighting result.

Counties containing the minimum number of retailers were used as a starting point for forming a PSU. Counties that did not contain the minimum number of retailers were joined with other counties until the required minimum number of retailers was attained. In forming PSUs from multiple counties, the goal was to join counties that were dissimilar, so

Authorized Retailers' Characteristics and Access Study

135

as to provide a higher degree of heterogeneity within the PSU. The definitions of geographic regions as well as natural barriers that impede travel from one area to another were considered in forming the PSUs.

Stratification of PSUs. Stratification of the PSUs ensured that each major region of the country and the urban/rural nature of the PSU was taken into account. Two interacting factors were identified as critical for maximizing the homogeneity of strata for satisfying the analysis goals of this study: (1) similarity of urbanization characteristics of the PSUs composing each stratum, and (2) similarity of geographic location for the PSUs in stratum. Strata were constructed so as to contain approximately equal numbers of authorized stores. That procedure establishes equal work loads and minimized the effects of variation of stratum "size" on the variances of study results.

PSUs were identified with an urbanization score or index that reflected population per square mile, the proportion of urban to rural population, and the presence of a central city.

Geographic diversity was represented by obtaining information across the major regional designations of the country. Five regions were used in forming the strata (East, Midwest, South, West, and Central). Allocations were proportional to the total number of stores in each region. The PSUs were then ordered by the urbanization index and grouped into strata so that each stratum contained the same number of stores. PSUs were at times shifted one urbanization level to equalize the number of stores within each stratum.

Selection of Sample PSUs. In each stratum, one PSU was selected with PPS. The selection process ensured that there was independence from one stratum to another. The resulting probability of selection of each sample PSU was the number of authorized stores in the PSU divided by the number of stores in the stratum.

Defining Secondary Sampling Units (SSUs). In each sample PSU, a set of SSUs was defined as a single ZIP Code area, a combination of two or more contiguous ZIP Code areas, or as several areas within a ZIP Code area. Whether ZIP Code areas were kept intact, subdivided, or combined depended on the number of retailers in the area.

Selecting Sample SSUs. Twenty-one SSUs were selected within each PSU according to PPS. The approach designated 21 "marker" stores, and each SSU was assigned a score equating to three times the markers it received. SSUs were then selected on the basis of the scores. An SSU could enter the sample more than once.

Selection of Sample Stores. The last step in the selection process was to determine what stores constituted the ultimate cluster. The sampled stores in each SSU were selected with a probability of p from an ordered list of authorized retailers in the SSU. The stores were

Authorized Retailers' Characteristics and Access Study

Appendix A

ordered by type of store (e.g., supermarket, groceries, convenience stores) and selected from the frame of authorized stores for that SSU. The ultimate cluster of stress in a given SSU was established through systematic sampling. In a given SSU, we used a random start and the "within SSU" sampling interval of B/3m—where B is the number of stores in the SSU and m is the number of times the SSU was selected—together with the ordered list. The probability p is 3m/B.

Weighting and Estimation

The weight is simply the inverse of the joint probabilities of selection at the PSU level, the SSU level, and the sampling levels for individual retailers. It is simply the value W. The following discussion deals with several weighting and estimation issues related to methods for dealing with noncooperative and out-of-scope retailers.

Noncooperative Sample Stores. Some sample stores did not want to participate in the data collection. There were other stores that may not, even if sampled, be appropriate subjects for this study because of an ongoing investigation, or because they were in locations that were too dangerous to visit. Those stores will be considered as part of a "nonresponse" class. Of all the retailers sampled, only 37 were considered to be nonresponses. We drew substitutes from a shadow sample to replace those noncooperating retailers. The shadow sample was drawn so as to represent the characteristics of the noncooperating store. Thus, we first attempted to draw a store of the same type from the SSU. If we then failed to find one, we then drew any store from the SSU. If that too failed, we drew a store of the same type from anywhere in the PSU. Finally, if those approaches failed, we drew randomly from the PSU.

Out-of-Scope Sample Stores. Retailers might be "out of scope" because they went out of business since the frame was established, changed their location to one significantly different, or could not be located or contacted for various other reasons.

Since one objective of the sampling design was to obtain 2,500 observations, we replaced those out-of-scope retailers with a supplemental sample. The supplemental sample was viewed as data that could provide additional information for the analysis. Because the stores included in the supplemental sample were drawn randomly from the 40 PSUs, they represented a drawing using a different probability mechanism than the one used in the original sampling process. In total, there were 120 retailers who were selected via that mechanism.

Authorized Retailers' Characteristics and Access Study

Estimation of Variance. Variance estimation was done by means of pseudo-half-balanced replications, using Fay's method.¹

Frequencies of Data in Cells. With the exception of cost, all survey data reported in the tables are based on the same number of cases. Table A.1 provides those cell frequencies.

Sample Sizes for Tables and Figures

			Manh	e of Stores I	Tab Jaed for Da	ie A-1 rhying Sa	ngla Gasad	Maanures.				
Store Type		Urben		-	Mixed			Renal		All Locations		
	High- Poverty	Case	Total	High- Pornety	Otter	Yotal	High- Poverty	Citier	Tetal	High- Poverty	Other	Total
Supermarket	9	154	163	14	138	152	6	55	61	29	347	376
Large Grocery	13	37	50	9	39	48	6	50	56	28	126	154
Smail Grocery	93	162	255	34	66	100	36	64	100	163	292	455
Speciality	32	82	114	11	64	75	2	18	25	45	164	209
Convenience	44	244	288	46	227	273	23	66	89	113	537	650
Grocery/ Gas Stations	12	55	67	12	78	90	19	78	97	43	211	254
Other	42	85	127	19	82	101	19	33	52	80	200	280
Smaller Stores	223	628	851	122	517	639	99	259	358	444	1404	1848
All Store Types	245	819	1064	145	694	839	111	364	475	501	1877	2378

¹ D. Judkins, "Fay's method for variance estimation," Journal of Official Statistics, 6 (1990), 223-40.

Authorized Retailers' Characteristics and Access Study

Appendix B

Technical Memorandum

Appendix B

In this appendix, we present the approaches used for collecting and measuring costs, variety and availability, and quantity and quality.

Deriving Price Indices for the Market Basket

In this section, we provide an approach for comparing cross-sectional retailer prices or costs in lowincome and high-income urban and rural areas by store type or format. Although there are many approaches to deriving a price or cost method, we examine two distinct approaches.

The first approach, which was used in a recent Bureau of Labor Statistics (BLS) study of geographic differences in prices,¹ focuses on product-specific units of analysis. That study is premised on the purchase of a market basket of goods representative of the items sold *within a distinct geographic area.* The data set used for that analysis was based on the information collected for establishing the Consumer Price Index. That data collectors do not price the same items across all stores. Although the data collected are appropriate for estimating changes or trends in price, the data set fails to take retailer pricing behaviors into account. Nor can one infer, without a great deal of difficulty, anything about how particular retailers differ in prices on a market basket of goods.²

A second approach uses retailers as the unit of analysis. That approach assumes that comparisons should be made on the relative prices that different retailers charge for filling a market basket of food products. The model has characterized the work of the Department of Agriculture's Economic Research Service (ERS), which has carried out numerous surveys on retailers.^{3, 4} The emphasis of

140

Authorized Retailers' Characteristics and Access Study

¹ M. Kokoski, P. Cardiff, and B. Moulton, Interarea Price Indices for Consumer Goods and Services: An Hedonic Approach Using CPI Data (Washington, D.C.: U.S. Bureau of Labor Statistics, Division of Price and Index Number Research, January 1992).

² The BLS study assumed a variant of the model that adjusted for outlet type. The approach accepts the possibility that similar items could be priced differently across different types of outlets. It does not consider, however, the possibility that stores may vary in how they price a particular market basket and thus assumes a certain price homogeneity within an area.

³ U.S. Department of Agriculture, Economics and Statistics Service, Supermarket Prices and Price Differences: City, Firm and Store-Level Determinations, by Charles R. Handy and Phillip R. Kaufman, Technical Bulletin No. 1776 (Washington, D.C., December 1989).

⁴ U.S. Department of Agriculture, Economics and Statistics Service, Food Cost Variations: Implications for the Food Stamp Program, by Paul E. Nelson and J. M. McDonald, Technical Bulletin No. 1737 (Washington, D.C., February 1988).

Appendix B

the ERS research has been on determining the price position that the retailer presents to the community and how that price position varies on the basis of whether the store is part of a chain.⁵

In this study, the emphasis with regard to price is the cost of a market basket of foods and how that cost differs among different kinds of retailers. Retailers' pricing strategies are assumed to be inconsistent across a set of market basket items. Therefore, the model used by BLS, which ignores retailer-level information, is not wholly appropriate for this study.

Like the ERS, we have decided to price an entire market basket within each store visited. But, unlike the ERS, which defined the market basket to be representative of the full range of items carried by the retailers, we chose to price a market basket of foods that constitute the largest portion of sales. Each of nine food categories is represented in our market basket. Those categories are fresh produce, fresh meats, processed meats, dairy items, fresh seafood, bakery products, beverages and sodas, baby food, and general grocery. Within each category, products that led the category on the basis of sales volume were included. For example, ground beef and chuck roast represented the beef component of fresh meats, since they are the leading forms in which beef is purchased in food stores. Constructing the market basket in that way provides data on foods that people are most apt to purchase, greatly simplifying data collection and increasing the chances of finding the items specified in the market basket. Therefore, though the market basket may not represent the retailer's actual price position in the market, it does represent the cost of filling a specific market basket and thus the cost to an individual trying to fill that market basket.

Another deviation from the ERS approach was to price only the lowest priced item from the products specified in the market basket. ERS studies and other similar ones usually specify brands; in the absence of brand information, they substitute a generic product or specify that item as missing. Our deviation from the ERS approach was on the large range of retailers from which we would collect information and the expectation that many of those retailers would not have a full range of foods to price.

In adopting our strategy, we largely ignored consumer preferences with regard to brand or package size. Our assumption that shoppers will focus only on the lowest cost items is obviously not how most people shop. However, it does have two advantages. First, it provides a greater opportunity to avoid missing values, since it does not depend on a particular SKU being available across all stores. Second, it provides a lower bound on a cost estimate by assuming that shoppers will be thrifty in their purchases. Obviously, when collecting information on lowest cost items, items that have lower quality could be overrepresented. Additional analyses of the data have shown quality not to be a factor in price variations.

Authorized Retailers' Characteristics and Access Study

141

⁵ By price position, we mean the image the store puts forth in the community as being expensive, average, or inexpensive. In other words, it is an overall indicator (non-product-specific) of how one firm's prices compare with another's. As an overall indicator, it is best represented by all goods sold in the store rather than by any specific product or market basket.

Specification of the Approach

In differentiating prices among stores, we intend to characterize differences between stores in the sample with a measure that represents the cost of purchasing the specified market basket in that category of store. Ensuring that prices of individual items are aggregated correctly to represent a market basket expenditure is critical to this effort. The overall derivation of a market basket expenditure can be represented by equation 1.

$$MBE_{j} = \sum_{i=1}^{n} Pr_{ij}Wt_{i}$$
 (1)

where: MBE_{j} = the Market Basket Expenditure or the total amount paid for the *n* specified products (the market basket) in a particular store category j; PR_{ij} = the price of a particular product i in store category j; and Wt_{i} = the weight or the amount of product i purchased.

The equation provides the total purchase cost of the market basket during a specific period of time from a particular set of retailers. Prices (i.e., Pr's) were collected from each store on all items specified in the market basket and available in the store. If not already expressed on a per pound basis, price information was converted to that basis. Doing that allows us to express prices in terms of a common metric that has a direct meaning in terms of use or consumption of food. In instances where the item is priced on a basis other than weight and a per pound price cannot be derived by the enumerator (e.g., eggs sold by the dozen or fresh milk by the gallon), conventional conversion factors are used.⁶

The weights (i.e., Wt's) allow us to aggregate information over various items that generally cannot be equated on a per unit or per pound basis. For instance, it would be a serious error to equate 5 lbs. of flour with 5 lbs. of peanut butter, or with 12 eggs. In general, the previously cited studies by BLS and ERS use either sales or consumption volume to weigh prices. The weights generally reflect the sample selection probabilities. Since our market basket represents a purposive or judgment sample, our approach for deriving weights relates to explicit patterns of consumption or use. Such weights reflect the amount (in some measurement unit such as pounds) of any item that would be purchased annually by a typical household.⁷

142

Authorized Retailers' Characteristics and Access Study

⁶ Most of the conversion factors required for this purpose will be found in U.S. Department of Agriculture, Conversion Factors and Weights and Measures, Statistical Bulletin No. 616 (March 1979) or U.S. Department of Agriculture, Economic Weights, Measures, and Conversion Factors for Agricultural Commodities and Their Products, Agr. Handbook No. 697 (June 1992).

⁷ Annual purchases are used here only as a reporting convenience. The weights in general can be scaled to represent any reporting period.
Determination of Weights

The weights used for this study are derived from the 1987/88 NFCS.^{8.9} The NFCS consists of two parts: a household portion and an individual intake portion. The weights used in this study are derived from the household portion, which provides estimates of food used by household members and guests during the data collection period. Those foods include those that are bought, home grown, received through food assistance programs, or received as gifts. The estimates are focused on food use and thus include food that is thrown away or fed to pets, in addition to that which is consumed by household members. All foods eaten away from home are excluded. Surveys are conducted throughout the year to avoid seasonal variations in habits of food use. Survey results were adjusted to account for differences in food use by guests and for meals eaten away from home by expressing all results on a 21-meal-per-week-per-person equivalency. Thus, the statistics represent what an individual in a particular household would use annually if he or she ate 21 meals per week at home.

Results of the 1987/88 NFCS have been disaggregated on the basis of several household characteristics: household size, household type, income quintile, race, region, and degree of urbanization. Table B-1 presents national estimates on household characteristics of the sample and quantity of food used for four kinds of households, all of which are "low income" compared to the overall average income of \$20,376 before taxes for all households surveyed.

The quantity measures shown in Table B-1 for the first (lowest) income quintile households would probably provide a good basis for weights used in the analysis. In general, the food products included in the market basket of this study correspond to products reported by the NFCS. For example, a weight of 271.19 pounds is applied to fresh fluid milk, 15.09 pounds (frozen desserts with milk) to ice cream, 73.13 pounds (cheese) to processed American cheese, 13.97 pounds (table fat) to margarine.

In some cases, where the NFCS food item is not subdivided sufficiently, individual NFCS weights must be allocated among two or more food products in the market basket. This allocation has been made on the basis of the volume of total food store sales, using values reported by *Supermarket Business* for 1991 and adjusted by the average retail price for that product in 1991 as reported by the Bureau of Labor Statistics. The weights used in this study are provided in Table B-2.

There are very different requirements and products specified for the Special Supplemental Food Program for Women, Infants and Children (WIC). The composition of those baskets corresponds to the WIC food packages prescribed for three categories of program participants: infants (4–12)

143

Authorized Retailers' Characteristics and Access Study

⁸ We at first considered adopting the weights used in pricing the Thrifty Food Plan (TFP). However, after comparing those weights with the ones developed from results of the 1987/88 Nationwide Food Consumption Survey (NFCS), we have concluded that the TFP weights do not reflect recent consumption trends.

⁹ Department of Agriculture, Economics Research Service/Human Nutrition Information Service, Changes in Food Consumption and Expenditures in Low-Income American Households During the 1980's, by Steven M. Lutz et al., Statistical Bulletin No. 870 (November 1983).

.

Table 1

WALLARD FLATER HARSTINKE INCLUDE TOPL CONTANTELL DELPOIT HALLAR	Average annual	household	food us	e (per	21-meal	equivalent	person)	1987/88
---	----------------	-----------	---------	--------	---------	------------	---------	---------

			Income of	wintile
	Nousehold siz	e fomale head		
	five or more	with children	first (lowest)	Second
Nousehold characteristics:				
Nouseholds (sample)	495	434	732	732
Nouscholds (thousands)	9,199	9,647	13,107	13,056
Income before taxes (dollars) 1/	12,856	10,772	4,251	9,412
food expenditures: 2/				
total food (dellars)	1,472	1,616	1,397	1,555
Aver (con home food (dollars)	307	1,151	1,102	1,159
Ase of household head (years)	41.1	42.1	69.7	340
Nousehold size				
(21-meal equivalents)	4.85	2.66	2.39	2.49
Nousehold size				
(Including boarders)	5.67	3.22	2.71	2.87
Children under 16 (number)	2.97	1.47	1.09	1.00
Add(Es over on (mader)		.12	-34	.39
food group:	Quentity (pounds per 21-	eal equivalen	(person)
Dairy products (fresh equivalent)	448.34	305.00	302 17	
Fresh fluid milt	317.04	277.18	271.19	301.00
Processed milk	26.11	15.89	30.58	19.13
Crean, crean substitutes, dips	2.98	2:81	2.17	3.48
frozen desserts with milt	18.86	17.73	15.09	20.55
Cheese	85.35	81.39	73.13	89.27
fats and oils	30.33	31.49	33.43	31.77
Table fat	13.26	13.25	13.97	14.53
Shortening	3.19	3.95	5.32	3.25
Salad dressings	8.71	8.75	8.71	9.52
	44.00	44.54	72.64	42.49
flour and cereats	13.19	11.61	16.61	11.94
flour mixes	4.44	5.52	4.93	5.58
Breatfast cereals	23.95	20.43	22.34	22.60
Other cereals	24.52	28.60	28.77	22.37
Bakery products	91.33	85.06	86.51	93.14
Bread	49.58	42.52	48.83	-66.80
Other baked goods, doughs	41.76	.42.33	37.09	46.34
Heat	136.14	149.76	150.16	142.50
Beef	68.48	75.63	76.89	74.56
Pork	41.35	40.01	43.69	41.90
Veal	.23	1.24	1 51	
Last, sutten, geat	3.41	3.31	3.41	3.45
Lunch meat	20.96	22.17	23.43	21.20
Poultry, fish, shellfish	70.31	81.77	43.26	77.87
Poultry	55.23	63.45	62.03	59.62
fish, shellfish	15.08	18.31	21.23	18.25
Eggs (fresh equivalent)	24.05	25.85	28.54	26.34
Sugars, sweets	46.07	44.94	47.43	45.40
Sugers	27.05	1.04	31.20	22
Syrups, molasses, honey	3.71	3.11	3.74	6.25
Conflor and mile services	4.23	5.72	6.95	5.21
Missellanenus succes	4.32	3.97	3.36	6.28

Authorized Retailers' Characteristics and Access Study

Technical Memorandum

			income q	wintile
	five or more	female head with children	first (lowest)	Second
Potatoes, sweetpotatoes	65.85	62.27	12.36	66.31
fresh	\$4.66	51.46	1.07	35.13
Connercially conved	.43	2.58	2.19	3.31
Commercially frazen	.76	.64	.59	.73
Chips, sticks, saled	6.44	6.67	5.57	6.55
Fresh vegetables	87.02	87.27	93.54	97.55
Dark green	9.83	13.36	10.92	10.48
Deep yellow	7.23	0.02	11.87	8.70
Tonatoes	80.97	31.78	35.37	12.13
Other vegetables	27.84	26.46	26.22	32.07
Frank Inuits	111.06	98.96	106.73	115.70
Citrus	26.12	17.58	19.84	24.00
Other vitamin C rich	7.89	7.56	7.73	10.76 80.93
Uther Truits			54 11	10 .01
Conned vegetables and fruits	35 77	44.53	44.51	39.76
Vegetables fruits	8.61	8.00	9.80	9.26
Fearen venetables and fruits	9.38	9.15	7.04	10.55
Venetables	9.25	9.14	6.86	10.23
Fruits	.14	3/	.18	.32
Vegetable and fruit juices	90.06	96.54	95.49	84.52
(juice equivalent)	3 78	3.70	4.89	4.45
Vegetable juice	20.86	22.74	27.39	19.45
Frazan fruit juice	41.55	33.38	32.81	35.43
Fresh fruit juice	23.87	36.73	30.39	24.98
Balad manageblas and faules		5.49	7.34	4.68
Venetables	6.61	5.16	6.47	3.48
Fruits	1.04	.54	.67	1.19
Severages	190.85	223.53	188.61	223.60
Coffee	5.06	4.89	2.20	2.02
Tes	1.73	2.61	.72	.77
Cocos, beking chocolate	-67	168.40	134.98	- 154.34
Ades muches nectors	19.58	32,15	18.05	21.93
Alcoholic beverages	29.45	14.61	26.90	37.39
Soups, sauces, gravies	10.82	11.23	11.17	14.11
Ready-to-serve	2.92	3.36	6.19	9.19
Condensed, frazed, dried	7.90	1.01		
Nuts, condiments	16.26	17.33	15.60	7.26
Huts, posses butter 4/	6.15	0.65	7.24	7.47
Catsup, chill souce, etc. Picties, relishes	2.64	2.38	2.33	3.48
Histories discorr	16.73	23.97	18.76	21.32
Canned, (resea, dried	17.44	22.89	17.49	20.45
Baby on Jumler Jacout	1.27	1.07	1.27	.67

Table 1 (cont'd)

Notes Humbers may not add due to rounding.

IA = Hot applicable.

V 1988 doilors per equivalent person

/ 1960 dellars per 21-mest equivalent person.

y Less then 0.65.

4 these in shelled weight equivalent.

Authorized Retailers' Characteristics and Access Study

Technical Memorandum

м	Tabl	le 2 west income Quintile Ba	isis
Product/Category	Weight (lbs/person/year)	Product Category	Weight (lbs/person/year)
Fresh Produce Tomatoes Potatoes Lettuce Apples Oranges Bananas	11.57 62.95 35.37 34.63' 19.84 44.33'	Baby food Intent Formula, milk based soy based Intent coreal Intent juice	8.50° .70° .51° 2.38°
Fresh Meats Ground Beel Beel Chuck Rosst Pork Chops Broiler/Fryer	53.82 ² 23.07 ³ 25.65 ⁴ 62.03	Bekery Products Bread Soda Crackers	46.83 37.69
Dairy Ruid Milk Processed Cheese Margarine Eggs Ice Cream	271.19 7.92 ⁻³ 13.97 28.54 5.58 ⁻⁶	General Grocery Canned Tune Freen Meet and Cheese Pizza Freese Chicken Pot Pie Freese Chicken Pot Pie Freese French Fries Ground Coffee Flour	6.37° 4.02° 1.05° 2.19 5.68 16.61
Processed Meets Becon Frankfurters	17.04* 23.63	Rice Ready-to-est Cereal Sugar Canned Com Canned Andreasure	14.10 ⁷ 28.77 31.20 46.51 9.80
Fresh Fish Fish Fillets	14.86 *	Catange Canned Soup Macaroni & Cheese Classer	7.24 2.96 4.02* 2.10*
Beverages Cola Soft Drink Fresh Grange Julice Apple Julice	134.96 30.39 27.39	Canned Meation Spaghetti Sauce Peanut Butter	6.47° 6.03
Smacks Sugar Coated Candy Potato Chips	4.96 5.57		

The Total Weight for the Market Bosket is 1,270.03 pounds.

Conve

Id on the basis of the estimated volume of 1991 food stars sales; apples-.44 bananas-.55. Id between ground beef (.70) and chuck resul (.30) on the basis of 1/93 estimates by ERS, USDA. Isod from freeh milk equivalency basis assuming that 8.23 fb. of freeh milk equals 1 pound of cheese. Isod on the basis of the estimated volume of 1991 food stars sales of freeh pork (.61) and bacon (.30). Isod from freeh milk equivalent basis assuming that 1 fb. ice cream is equivalent to 2.703 fbs. of whole milk. Isod from freeh milk equivalent basis assuming that 1 fb. ice cream is equivalent to 2.703 fbs. of whole milk. Isod from freeh fish (.70) and canned fish (.35) on the basis of estimates of the volume of sales in 1991. Isod on the basis of the value of food store cales in 1991, and on the basis of share of total food store cales in 1991. ole milk.

Authorized Retailers' Characteristics and Access Study

B-7

Cons	amption of Products in WIC Ma	rket Basket, in Pounds per	Month
Product	Infant, 4-12 Months	Children, 1-5 Years	Pregnant/ Breast- Feeding Women
In/ant formula	27.0		
infant rice cereal	1.5		
Orange juice	6.2	19.3	18.5
Whole milk	-	38.7	34.4
Processed cheese		2.0	4.0
Ready-to-eat cereal		2.3	2.3
Peanut butter		1.1	1.1
Eggs		3.0	3.0

months), children (1-5 years), and pregnant/breast-feeding women. The product composition and item weights for those baskets are shown in Table B-3.

Determination of Market Basket Expenditure

The general approach to calculating a market basket expenditure is represented in equation 1, in which all products, properly weighted, are added. This equation provides proper expenditures if all products were available for all stores. However, this study addresses a very diverse set of retailers representing different product mixes. Comparisons of retailers, since we know that they will not be able to supply the entire market basket, are problematic.

One approach that has been widely used in comparing food prices incorporates the concept of "price relatives," which is an index that states a particular retailer's price on an item as a percentage of the average price over all retailers. That approach is used to address problems in establishing prices on "missing items" because it facilitates comparison of retailers with different product mixes. Another useful feature of using price relatives is that they can be aggregated across any set of foods. An illustration of an expenditure-relative approach is provided below. In this example, it is assumed that two of the items (oranges and bananas) were not available in store A. For the four items priced in store A, expenditures averaged 3.6 percent above those of all stores (i.e., \$88 divided by 84.98).¹⁰ The expenditure-relative index of 103.6 indicates that the retailer sold the food items at 103.6 percent of the expenditure in the average store. The use of the index also assumes that items not available in the store (i.e., missing items) will also be bought, if sold at that store, at that rate of expenditure.

¹⁰ Expenditure relatives reflect a simple aggregation of price times the weights, with the relative expenditure being calculated on the aggregations. The use of price relatives would compute the price relative of each item and then multiply it by the weight. The results of that multiplication would then be summed. That approach is used in the previously cited studies done by BLS and ERS.

Technical Memorandum

	ille	Table Selectation	e B-4 of Expenditure Rela	tive	
Item	(1) <u>Weischt</u> (liter./yww.)	(2) Average Price (All Stores) (Vills.)	(3) Average Aressel Expenditure All Stores (1) x (2)	(4) Store A Price (Sribs.)	(5) Store A's Annual Expenditure (1) x (4)
Tomatoes Potatoes Lettuce Apples Subtotal	11.87 62.95 35.37 34.82	\$1.01 .33 .60 .89	\$11.99 20.77 21.22 <u>31.00</u> \$84.98	\$.98 .35 .64 .91	\$11.63 22.03 22.64 31.70
Oranges Bananas Total	19.84 44.33	.92 .48	18.25 <u>21.28</u> \$124.51	na na	\$88.00

There are several problems with using price or expenditure relatives. First, it would not be surprising for some retailers included in the study to sell only one item—for example, fresh fish—from the total market basket. A comparison of expenditure relatives for seafood markets based on a single item with expenditure relatives for full-line supermarkets, which would be based on most if not all of the items in the market basket, would not be very meaningful.

Another problem with the use of expenditure or price relatives is illustrated when a store that fulfills a partial market basket shows a very high price for one or two items, with the remaining items being in line with the average price. The high-priced items would skew the overall expenditure relative, which would bias comparisons with other stores. The bias would be more extreme in cases where the retailer provided relatively few items. The high-priced items, however, should not be excluded from the total expenditure, since the expenditure reflects the reality of a purchase made from that retailer. Using expenditure relatives may not provide a useful comparison between a particular retaile. and retailers able to offer different market baskets.

Our discussion above suggests that we should *minimize* the effect of "missing items" and thus of imputing a value through price or expenditure relatives. That would imply that we compare retailers only on the parts of the market basket that they are able to provide. Comparisons would involve only stores with similar food products. A fish store can be compared on the price of fresh fish to other stores that sell fresh fish, regardless of whether they sell other products. The price should not be compared to other stores that do not sell fresh fish or to the market basket price of items other than fish. With that emphasis on comparing market baskets, we reduce the impact of missing data

and therefore the need for imputing prices or using price relatives.¹¹ For stores that can satisfy a number of market basket components, costs can be aggregated by market basket component to yield an overall market basket expenditure.

Our simplifying assumption for the purposes of this study is that we will build up overall costs from individual items **over** the various categories of analytic interest. For example, assume that our analytic interest focuses on store types. In the analyses presented in this paper, we have used seven categories of store type. Each store in the sample can contribute a price for a particular item; so over all stores of that type, we can derive a mean and standard error. Some stores will not carry an item and will not be able to provide a price. Those stores will be declared as missing with regard to that item. For example, not all supermarkets can supply a price for fresh fish. But, for each item, we can estimate a price if at least one store in that category can provide a price. Prices will cover a range, depending on how many cases contributed to the mean expenditure in that category.

There are two steps in calculating a price. The first step is to determine whether the cost should be used or declared missing. Obviously, if all stores in the category contribute to the mean expenditure for an item, then the mean is an unbiased estimate. If none of the stores can contribute a price, the item should be identified as missing. The last case occurs when some stores contribute to the item expenditure. We can decide to accept the mean as if all stores contribute to the value, or we can decide to accept the mean only if a certain percentage of stores contribute to the expenditure, or we can specify a certain limit using the ratio of the mean to the error. For convenience, we have chosen to use the first approach in presenting data for this report, with the recognition that some bias on the item level might occur. We have, however, conducted some informal analyses using various approaches and found that the general relationships presented in the study do persist.

Price Comparisons

In developing the overall expenditure across all items, a particular analytic category contains expenditures only for items that a store does carry. Therefore, costs in one type of store and costs in another type of store may be based on different sets of items. Expenditures between categories of stores with different sets of items are then compared by means of an index. The index is computed by taking the expenditure for one set of items for one store category and indexing it to the same set of items in another category. In all our analyses, we have used supermarkets as a base for the index, because those stores are most likely to carry a full set of items.

¹¹ We do not suggest that we will not impute values in certain circumstances. For instance, a full-line grocery store may be missing 1 item out of the 50 or so being collected. In this case, we expect that any bias due to the imputation would be minimal. In general, however, we wish to avoid imputing values.

Assessment of Variety and Availability

Variety, for our purposes, is defined as the number of purchasing options available to the customer within and across product groupings specified by the market basket. Variety is present when the shopper can select from among several variations of a food item. It is absent either when the product is not available or when the market basket requirement can only be satisfied by one product.

On the other hand, availability is the distinction between the presence of a product and its absence. The analytic approach has been constructed to recognize the difference between the two concepts. The remainder of this paper provides our approach for assessing variety and availability and for presenting findings.

Framework for Defining Variety and Availability

We have identified five dimensions for defining variety and availability, as follows:

Food Group Category reflects options available within and across food groups, such as vegetables, fruits, meats, dairy products. There are two major interests concerning food group category. First, to what extent are different food groups represented among the items sold by the retailer? That question addresses the extent to which food retailers can fill a market basket containing numerous food groups. Second, to what extent are alternatives available within a food group category? This focus relates to the degree to which retailers provide choices within a particular food category and thus are able to satisfy dietary needs of different shoppers.

Form reflects the degree to which a specific commodity or product is available in fresh/perishable, canned/bottled, dried grocery, or frozen form. Since form describes the storage attributes of the product, it provides a basis for describing whether retailers are able to address the storage capabilities of different shoppers. In addition, form relates to the degree to which a store carries fresh or perishable items.

Brand identification provides a basis for shoppers to purchase "known quantities" over other available products and thus decide on the bases of price and quality of a product.

Packaging refers to how a product is externally presented to the shopper and is defined by container differences. Packaging variation is exemplified by two differently sized jars of peanut butter. It is also exemplified by potatoes sold loose or in 5- and 10-pound packages; and by soda, which may be sold in six-packs, in 32-ounce bottles, or by the case.

Assortment or Styles is a catchall dimension that can be illustrated by the following examples:

- Varieties of apples (e.g., Red Delicious, McIntosh)
- Various cuts of meat (e.g., ground round, sirloin)
- Lite versus non-Lite products

This dimension describes how the commodity is presented to the shopper. Of course, it also may reflect on how exclusively or inclusively we define the products in our market basket. For instance, McIntosh apples could be defined as a separate product rather than as a different style or variety.

Those dimensions provide a perspective on the degree to which retailers offer options to consumers concerning their nutrition, taste, use, and storage preferences. Our approach provides retailer measures of variety for each of the dimensions and avoids summarizing them into one comprehensive measure.

Data Collection Strategy for Assessing Variety

An optimal strategy for addressing variety would be based on collecting information for every SKU (stockkeeping unit) that meets market basket specifications. Information collected would reflect SKU characteristics—including brand, size, packaging, and product description. Variety could then be measured by simply counting how many different brands, package types, and styles for each product were specified by the market basket. To illustrate, Table B-5 presents information on five SKUs for canned tuna. The illustration shows that although there are five SKUs, there are only three brands, three package types, and two styles. Information in the exhibit provides exact details on a specific product and thereby describes the variety present in the store. That approach, however, imposes a large burden on data collection, since the number of product variations in some stores is staggering. For instance, there may be at least 50 SKUs of canned tuna in a typical supermarket. Filling a market basket of 60 items might involve describing well over 5,000 items—a daunting task even for the most energetic data collector.

This study uses a simpler data collection approach, premised on the assumption that to measure variety and availability, it is unnecessary to know product characteristics (such as brand name). It is only sufficient to know the number of alternatives (e.g., brands). Data collection then becomes a counting process rather than a descriptive process.

	CHCC appendition		u
Brand	Packa	ae Type	Styles
Starkist	929	1 pack	Packed in wate
Starkist	184g	1 pack	Packed in wate
Starkist	92g	3 pack	Packed in wate
Bumble Bee	184g	1 pack	Packed in oil
House brand	184g	1 pack	Packed in oil

151

-

Two other strategies were adopted to simplify data collection. The first strategy stipulates that we obtain separate counts for brand, styles, and packaging types for a particular market basket product. We will make no attempt to count all the combinations represented under the product. To illustrate: in Table B-5, there are five unique combinations for canned tuna that are defined by brand, package type, and style. Yet, there are only three distinct brands, three package types, and two styles. We therefore focus on describing the product by the latter set of counts, thereby reducing the burden of data collection considerably.

A second strategy ensures that the data collector will not waste time counting when the count would have no significant effect on the analysis. That strategy involves specifying an upper limit up to which counts are to be made. That maximum was conceptualized as representing "sufficient variety." To illustrate, a supermarket might carry six types or styles of apples (McIntosh, Jonathan, Red Delicious, Golden Delicious, Granny Smith, Stayman). That would constitute substantial variety with respect to apples. Many smaller stores might offer only one or two types, and others do not sell apples. We would argue that it is only important to discern between stores that sell a minimum number of apple types and those that do not. For our purposes, "sufficiency" is the number of variations that differentiate large, full-line grocery stores (e.g., supermarkets) from smaller stores. From test data, we found that with a few exceptions (e.g., cereals and soft drinks), larger stores and supermarkets usually did not carry more than four brands within a particular product category. On the other hand, smaller stores usually carried one or two brands for most products. Similar results were found with regard to variations in packaging and style. Therefore, we created the following scale:

- Product not available (None counted)
- Item available, no variety (One item counted)
- Minimal variety available (Two variations counted)
- Sufficient variety available (Three variations counted).

In summary, for each product—as defined by the market basket—we obtained separate counts in brands, in packaging types, and in styles. The maximum count in each of those categories did not exceed three. The result might reflect the information provided in Table B-6.

	Ta ryle of Date Cali	nte BLE	
Product Of		No.47 Pro-Long Type 1	the of the second
Canned Tuna	3	3	2
Source: Auth IV, February	orized Food Retailer (1997.	Characteristics Study: Teo	Innical Report

The approach specified above reflects our effort to reduce the burden of data collection, yet collect data that are useful for comparing retailers. However, it also creates more complexity for establishing measures of variety and availability.

Products and Forms

There are approximately 150 market basket products on which data are collected. Each product is associated with a product and form category. Some of the products are indicative of whether retailers sell foods typical of ethnic diets. Other products are included solely to evaluate whether the store sells particular WIC items. In some cases, the goal may be to compare retailers in regard to particular products (e.g., infant formula). In general, however, we do not focus on comparisons on an item-by-item basis. Instead, we focus on describing the variety for the entire market basket or market basket subcomponents.

To derive that general measure of variety, we required a strategy for combining data collected on individual items to aggregate (food group) levels. The food groups that are used appear in Table B-7. That is an adaptation of a classification described by Steven M. Lutz in *Changes in Food Consumption and Expenditures in American Households During the 1980's.*¹² The classification provides only one way of categorizing the data, and we may define other categories or subcategories as needed. For instance, another set of categories that may be of interest are the seven on FCS Form 252.

Measuring Variety

The analysis, with some exceptions, compares variety within specified food groups or for the market basket as a whole. Therefore, information on products within a food group has to be combined to derive an overall score of variety. There are four major steps in forming a variety measure, namely:

- Generating weights for products on which data are being collected
- Summarizing brand, packaging and style measures within a product category
- Developing a measure of variation for the product dimension for the product category
- Developing a measure of variation for the form dimension for the product category.

Generating Weights for Product Categories. One approach to summarizing variety for a food category containing several products assumes that all products in a particular category contribute

Authorized Retailers' Characteristics and Access Study

¹² U.S. Department of Agriculture, Human Nutrition Information Service, Changes in Food Consumption and Expenditures in American Households During the 1980's, by Steven M. Lutz et al., Statistical Bulletin No. 849 (Washington, D.C., December 1992).

equally to the overall variety measure. Thus, variety in fresh apples and variety in fresh pineapples would contribute equally to variety in the fruit category. Another approach would weight each product so as to reflect its importance in shoppers' diets. In that method, variety in fresh apples is far more important than variety in pineapples from the consumer's perspective, since the former has far higher sales.

Major Food Categorius for the Analysis			
Fresh Meat Beef Pork Variety meat Lunch meat	Dairy products (fresh equivalent) Fresh fluid milk Processed milk Cream, cream substitutes, dips Frozen desserts Cheese		
Fresh Poultry Chicken Turkey	Eggs		
Fresh Fish, Shellfish	Cereals, grain products Flour, not in mixes Flour mixes		
Canned or Packaged Meat, Poultry, and Seafood	Other cereals Rice, pastiche, pasta		
Fresh Produce Potatoes, sweet potatoes Vegetables	Bakery products Bread Other baked goods, dough		
Deep-yellow Tomatoes Light-green Other vegetables	Mixtures, dinner		
Fresh fruit Citrus Other vitamin-C-rich Other fruits	Other Foods Soups, sauces, gravies Nuts, condiments Muts, peanut butter Catsup, chill sauce, etc. Pickles, relishes		
Canned or Packaged Produce Vegetables Fruits Vegetable and fruit juices	Spices Sugar, sweets Sugar Syrup, molasses, honey Jellies, jams, preserves Candies Misc. sweets		

Authorized Retailers' Characteristics and Access Study

B-15

Summarizing Measures of Brand, Packaging, and Styles Within a Product Category. There are several approaches for measuring variety and availability in relation to brands, packaging types, and styles within a product category. The most obvious measure is the simple weighted average, which summarizes the weighted contribution of all products to variety in the product category. Table B-8 illustrates the calculation of a score developed by using that approach. In this example, we summarize data collection for the fruit category, which consists of oranges, apples, and bananas. Data collected from a particular store indicate that there were two varieties of oranges available, three varieties of apples, and one variety of bananas. The weights reflect household expenditures on the items (the ones used in the exhibit were fabricated for the illustration). The weights sum to 1 within the product category. The weighted values are provided in column 4, and the summary variety measure for the fruit category is presented in column 5. It should be noted that the variety measure has an upper value of three. Calculations displayed in Table B-8 provide a framework for carrying out calculations for any grouping of products. The degree to which that measure varies within product groups provides information on the extent to which variety is present across all products in the group. Other measures discussed in the next two sections provide information on the extent to which product variation is found within product groups.

	Example of S	ummarization fo	Fruit Category	
Products (1)	No. of Styles (2)	Weight	Weighted . No. of Sityles (6)	Averag (5)
Oranges	2	.5	1.0	
Apples	3	.3	.9	2.10
Bananas	1	.2	.2	

Developing a Measure of Variation for the Product Dimension. In assessing variety for particular product categories, it is necessary to examine the degree to which shoppers have choice within that category. For instance, the example in Table B-8 presents three items, the presence of which provides the shopper with options for buying fruit. The absence of any one of these items reduces options and thus variety. A measure of product dimension is based on a combination of the availability of an item in the store and its weight or importance to the shopper.

An appropriate measure, therefore, is simply the sum of the weights of items that are available. In the example provided in Table B-8, the product dimension score would equal 1—indicating that all products were present. If bananas were not sold, the score would be 0.8. Since the product weights will sum to 1, this score will always be less than or equal to 1. If the score is equal to zero, the particular food category is unavailable. The above calculation of score can be used for any food grouping where the total score is the sum of the product weights for the items present within that food grouping.

Developing a Measure of Variation for the Form Dimension. Our interest in the form dimension relates to whether authorized retailers provide fresh or perishable goods and whether they offer shoppers choices in terms of storage possibilities. The first interest is easily handled through assessing how much of the market basket's fresh/perishable products are available.

As in other analyses, we weighted each of the fresh/perishable products and summed those weights for each product category. A percentage is calculated by using the actual weights for market basket items actually sold. The measure ranges between zero and 1, with the former representing a retailer having no fresh/perishable goods at all and the latter representing a retailer that can meet all of the market basket specifications for fresh/perishable items.

The . econd measure focuses on the degree to which each of the major food categories is found to be available in fresh/perishable, canned/bottled, dry, or frozen form. For each of the major item categories, we judge the availability of that food category in each of the four forms. If the food item is present, it is given a value of 1; if not, it is given the value of zero. The total measure is the weighted average across all forms for a particular food product or category. The values are defined as the percentage of the total weights (as defined previously) of all foods in that category.

Thus, if frozen produce is sold in the store, and the total percentage of all produce (as specified by the market basket) that is accounted for by frozen produce is .20, then the value for frozen produce is .20.

The average of that value and fresh, bottled/canned, and dried produce is calculated and used to represent the availability of various forms. That weighted average will be sensitive to the absence of certain types of forms of food, although it does not indicate which forms are absent.

Assessment of Quantity and Quality

One of the critical questions for this study involves the quantity and quality of food that is available in food stores authorized by the Food Stamp Program. A related question concerns the freshness of foods sold by those retailers. Before we establish a framework for measuring quality and quantity, we will elaborate on the data collection approach.

Data Collection Approach

Three major difficulties must be dealt with in collecting data on quantity and quality. First, in assessing quantity, we should take quality into consideration. Items that do not meet a minimum standard of acceptability should not be counted as contributing to the overall stock that shoppers have access to. That approach assumes that shoppers do not buy poor-quality products.

Second, some retailers typically carry very large inventories of certain items, and many do not put their entire stock on display. Those practices complicate our assessment of quantity. Methods of data collection include (1) taking an inventory of items, (2) sampling items, or (3) adopting some sort of limited purposeful-counting approach. In selecting an approach, we must consider the benefits of the approach against the difficulties of implementing it.

Third, in assessing quality, we are confronted with products that cannot be assessed without being intrusive for the stores that are being surveyed. Data collection may involve manipulation of items to assess quality or requesting counts from the retailer if items are not available. However, since we are not purchasing the items examined, we cannot open cartons or cans to check on quality.

To address those concerns, we have adopted a strategy for data collection that is aimed at minimizing the intrusion on retailers and maximizing project resources, while providing adequate information for differentiating stores by the quality and quantity of their food products. The approach is based on assessing the retailer's ability to fill shoppers' market baskets from the items to which they have access, and does not attempt to characterize the total amount of stock available at any store. In some ways, the estimates can be conceptualized as flow measures, in that the information is oriented toward assessing whether the retailer can supply a certain amount of goods of acceptable quality within a certain time period.

The products on which quality/quantity is examined constitute the same market basket that is being priced. For each product in that market basket, we determine the degree to which items available in a display meet standards of quality. We used three criteria for assessing quality, depending on which items are being assessed. For fresh/perishable items that can be directly assessed (e.g., apples), we determined whether the quality of the item fulfills guidelines that are specified by the USDA.¹³ Apples, for instance, are assessed in terms of whether they are bruised or blemished. For

Authorized Retailers' Characteristics and Access Study

¹³ How to Buy Food for Economy and Quality: Recommendations of the United States Department of Agriculture (New York: Dover).

fresh/perishable items that cannot be directly viewed (e.g., milk and bacon), we used dates to indicate whether an item was of acceptable quality. Finally, for items that cannot be viewed and where a date stamp was absent or indecipherable, we examined the packaging to judge quality. Canned and frozen items were inspected for dents and other deformities.

It might be the case that some products are not be available or are packaged in such a way that the data collector (or shopper) cannot evaluate them. For example, cans that are left in a box cannot be inspected for deformities. Obtaining information concerning the ability of shoppers to assess the quality of the products they purchase is important and should be noted in the analysis. Information was therefore collected on the relative access that shoppers have to products they shop for.

In assessing the quantity and quality of items within a product category, we adopted a purposefulselection approach. Because the mechanism is purposeful rather than random, the estimate for quality will tend to show greater quality than would be indicated had random sampling been used. There are two arguments as to why that effect is not critical for the analysis. First, our major interest is not so much in estimating the overall quality in a store, as in obtaining an indicator for comparison. If the bias is consistent across stores, comparative analysis will not be affected. Second, purposeful selection is more likely to represent how items are selected for the market basket. It is critical that retailers provide an adequate supply of acceptable items to make it possible to fill the market basket. Purposeful selection is likely to provide information on the extent to which that can be done. A purposeful-collection strategy also places less burden on our data collectors and on the retailers, who would be expected to react negatively to having someone rearrange their displays and manipulate their stock.

We have proposed that data collection be oriented toward detecting whether a sufficient number of items are available in the display. Sufficiency, in this case, is roughly defined as the quantity that would differentiate between well-stocked stores and poorly stocked ones. As an indicator of sufficiency, we derived rough estimates of the stock needed to fill 10 households' weekly market baskets simultaneously from the stock present in the display. The amounts were estimated from consumption data and refined in the pretests of the instrumentation. Table B-9 gives some examples of those amounts.

For each product, the data collector attempted to fill the market basket with the specified number of items that met the test of quality (e.g., 20 apples). In some stores characterized by poor food quality, the data collector searched through a large number of items to fill the market basket quota from available stock. The approach limits such searches by setting a quota on the total number of items that are inspected. That total number will vary by product and reflects the number of unacceptable items that are allowed. The basis for that approach is that shoppers become frustrated when encountering frequent cases of bad produce and will infer that the lot is not worth picking through. If the first five packages of ground beef are outdated, the shopper might assume that it will be difficult to find any acceptable packages of ground beef. The shopper might then forgo the purchase of the product or seek it at another store.

Technical Memorandum

Table B-9 Market Basket Quotas, by Selected Products					
Product	Selected	Rejected			
Apples (excludes crab apples)	20	10			
Bananas (excludes plantains)	10	5			
Carrots	10	10			
Lettuce	10	5			
Oranges (excludes tangerines, tangelos, and mandarins)	10	10			
Potatoes, white (includes potatoes with red skins; excludes sweet potatoes and yams)	10	10			
Tomatoes (includes cherry tomatoes)	10	10			

The data collection results in three pieces of information for each product in the market basket. First we collect data on whether quality and quantity can be assessed at all, or whether a full assessment can be made. Each product is assessed as to whether it is available to the shopper only through a clerk (in a storage room), is not visible to the shopper (bagged or boxed), is visually available to the shopper (in a plastic bag or in a showcase), or is totally available to the shopper for evaluation (apples in a bin).

Second, we collect information on the number of items that have been judged to be of acceptable quality. As indicated previously, our aim here is to have the data collector simulate approximately 10 households simultaneously accessing the same item. For each product, the number of acceptable items is limited by an upper bound, which varies by product. Table B-9 presents those upper bounds by product.

Third, we count the number of rejected items that were encountered in filling the market basket. An upper bound serves as notice to the data collector to stop assessing that item. Table B-9 also presents the upper bounds for some products.

Table B-10 provides an example of possible data that might be collected. The data are represented in bold type. With regard to apples, which could be fully inspected, 25 were selected. Although the market basket was filled, five apples were found to be unacceptable. For bananas, only eight bunches were found to be acceptable before the quota was reached with regard to unacceptable items. Therefore the market basket was not filled with regard to that item. Carrots show a third distinct pattern. The market basket was filled and every item was found to be acceptable. For potatoes, which are bundled in burlap bags, information on quality is not available, although information on quantity is available. We can count the number of bags of potatoes, which would be entered into the selected field. Finally, the information for tomatoes shows another pattern, in

Authorized Retailers' Characteristics and Access Study

which no item could be evaluated. We do not know how many tomatoes are available to customers nor the level of their quality.

e 8-10 Collected from Retailer		
Packaged 1= cannot access 2= cannot observe 3= cannot manipulate 4=loose	Selected	Rejected
(4)	(20) 20	(5) 10
(4)	(8) 10	(5) 5
(4)	(10) 10	(0) 10
(4)	(5) 10	(5) 5
(4)	(10) 10	(2) 10
(2)	(10) 10	(0) 10
(1)	(0) 10	(0) 10
	Packaged 1= cannot access 2= cannot access 2= cannot observe 3= cannot manipulate 4=looen (4) (4) (4) (4) (4) (4) (4) (4)	Packaged 1= cannot access 2= cannot access 3= cannot manipulate 4=locee Selected (4) (20) 20 (4) (8) 10 (4) (10) 10 (4) (5) 10 (4) (10) 10 (4) (10) 10 (1) (0) 10

Assessment of Quantity and Quality at the Product Level

At the very lowest level of consideration, we have to characterize quantity and quality for each product in the market basket. The following presents the approach for characterizing the quantity and quality for specific products.

Quantity: For each product in the market basket, quantity can be defined as the proportion of the specified number of items that have been accepted. To use an example, Exhibit 5 indicates that 20 apples were selected during the data collection for a particular store visit. That means that the market basket was filled and the proportion accepted is 1.0. For bananas, the market basket quota of 10 bunches was not achieved. Thus, the eight bunches that were accepted leads us to assign a quantity measure of 0.8. The same value would have been derived if the store only carried eight bunches. This measure therefore reflects whether the quantity available can meet some standard of availability, and is not a reflection on the total stock available.

Assessment of Quality: For every product, quality is defined as the number of acceptable items divided by the number evaluated. Thus, with regard to the information in Exhibit 5, the following values can be assigned.

- Apples: 20 of 25 items, or 0.80
- Bananas: 8 of 13 items, or 0.61
- Carrots: 10 of 10 items, or 1.00
- Lettuce: 5 of 10 items, or 0.50
- Oranges: 10 of 12 items, or 0.83
- Potatoes: Not Evaluated
- Tomatoes: Not Evaluated.

Missing Items: Items may be unavailable for any of three reasons. The store may be out of stock, it may not carry those items at all, or it may not provide full access to those items. All three causes are critical to defining availability of items. In the first case, it is critical that the store be assigned a zero value on the quantity measure. However, a quality score cannot be assessed. For the second situation, the quantity measure can also be assigned a value of zero. In this case, the quality measure is irrelevant. Finally, if the item is not accessible for some reason or other, neither quantity or quality can be measured.

From the perspective of quantity, assigning each of these situations a value of zero would indicate that the shopper does not have direct access to the products. Therefore for all items that are not evaluated, we will assign a zero to the quantity measure. From the perspective of quality, however, it would probably be better to assign a score that represents quality measured only among items that can be evaluated.

Aggregation of Quantity and Quality Measures Across Product Levels

To make comparisons between stores, we require an overall measure of quantity and quality. That measure is the degree to which retailers can provide sufficient quantity and quality across all the products that they sell. The mean and variance of the quantity and quality values of the particular products provide a good indication of the overall extent to which the market basket can be filled and the degree to which it can be filled uniformly.

As in other parts of the study, we believe that it is critical to provide a weighted value where the weights reflect the importance of the product to the consumer. Thus, the quantity and quality of some items may be more critical than others. The weights are the same that are used for the analysis of variety.

For quantity, we will calculate the weighted value as the sum of the products of the individual product scores and the weights. That overall score will vary between zero and 1. Items that cannot

Authorized Retailers' Characteristics and Access Study

be evaluated will be treated as not contributing to the overall quantity score. That can be interpreted as indicating that the retailer cannot supply the required product in sufficient quantity and that if shoppers still desire to purchase it, they will be obliged to go to another store.

For quality, we will calculate the weighted value minus the items that are missing. Thus the overall weighted value represents only those items that are present. The overall score will range between zero and 1.

Analytic Comparisons

Quantity and quality will be compared across different store types and urbanization categories. In the analysis, each cell will contain the average quality or quantity rating across all stores providing a particular market basket component. This rating will vary between zero and 1—with the latter score indicating sufficient quality and quantity.

Appendix C

Detailed Tables

=

EXHIBIT C SUPPORTING TABLES

TABLES OF CONTENTS

TITLES		P	AGE	3 1	NO.	-	
Exhibit	C-1						
	Average Level of Product Availability by Food Group, Degree of Urbanization, Poverty Level and Store Type	•	•				1
Exhibit	C-2						
	Average Level of Variety in Forms by Food Group, Degree of Urbanization, Poverty Level and Store Type		•				5
Exhibit	C-3a						
	Frequency Distribution and Average Level of Brands by Group, Degree of Urbanization, Poverty Level and Store	Fo e T	od	e			9
Exhibit	C-3b						
	Average Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type						25
Exhibit	C-4a						
	Frequency Distribution of Retailers by Level of Varies in Package Types by Food Group, Degree of Urbanization Poverty Level and Store Type	cy n,					29
				-			
Exhibit	C-4b						
	Average Level of Variety of Package Types of Food Grou Degree of Urbanization, Poverty Level and Store Type	. p,					45
Exhibit	C-5a						
	Frequency Distribution of Retailers by Level of Varies in Assortment by Food Group, Degree of Urbanization,	сy					
	Poverty Level and Store Type	•	•	•	•	•	49
Exhibit	C-5b						
	Average Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type						65
Exhibit	C-6		=				
DAILDIC	Average Level of Quality of Foods in the Market Baske Group, Degree of Urbanization, Poverty Level and Store	t b e T	y i	Fo	od		69
Exhibit	C-7						
	Percentage Distribution of Retailers by Frequency of Restocking, Degree of Urbanization, Poverty Level and	She	lf				
	Store Type	•	•	•	•		77

EXHIBIT C SUPPORTING TABLES

TABLES OF CONTENTS

TITLES		PA	GF	N	0.
Exhibit	C-8 Percentage Distribution of Retailers by Frequency of She Restocking, Degree of Urbanization, Poverty Level and Product Availability	elf			. 85
Exhibit	C-9 Percentage Distribution of Retailers by Level of Inventory of Non-Perishable Food Items, Degree of Urbanization, Poverty Level and Store Type				. 88
Exhibit	C-10 Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type .				. 96
Exhibit	C-11 Average Level of Freshness of Perishable Items by Degree of Urbanization, Poverty Level and Store Type .				112
Exhibit	C-12 Percent of Retailers Selling Specific Types of Food by Type of Food Sold, Degree of Urbanization, Poverty Level and Store Type				120
Exhibit	C-13 Percent of Retailers Meeting Staple Food Requirements by Degree of Urbanization, Poverty Level and Store Type				124
Exhibit	C-14 Percentage Distribution of Retailers Meeting the Staple Food Gross Sales Requirement by Degree of Urbanization, Poverty Level and Store Type				132
Exhibit	C-15 Percentage Distribution of Retailers by Types of Full Service Departments, Degree of Urbanization, Poverty Level and Store Type				136
Exhibit	C-16 Percentage of Retailers Providing Selected Non-Food Iter by Degree of Urbanization, Poverty Level and Store Type	ms			140
Exhibit	C-17 Average Level of Quality of Food Groups by Degree of Urbanization, Poverty Level and Store Type	•			144

165

Average Level of Product Availability by Food Group, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Group		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat Fresh Poultry Fresh Fish Processed Meat Packaged Meat Fresh Produce Packaged Produce Dairy Products Eggs Cereals, Grains Bakery Products Dinner Mixtures	0.99 0.95 0.33 0.95 0.87 0.92 0.97 0.77 0.99 1.00 0.99	0.95 0.91 0.83 0.99 0.86 0.95 0.96 0.95 0.96 0.99 0.99 0.98 0.98	0.95 0.91 0.80 0.98 0.95 0.96 0.99 0.99 0.99 0.98 0.98	1.00 0.87 0.36 1.00 0.93 0.96 0.99 0.80 0.99 1.00 1.00	0.92 0.86 0.67 0.98 0.98 0.91 0.97 0.78 0.99 0.98 0.99 0.94	0.92 0.86 0.64 0.99 0.89 0.92 0.97 0.78 0.99 0.98 0.99 0.98	0.98 0.88 0.50 1.00 0.93 0.96 0.99 0.80 0.99 1.00 1.00	0.87 0.78 0.33 0.96 0.82 0.87 0.94 0.77 0.99 0.97 0.99 0.89	0.88 0.79 0.35 0.97 0.83 0.95 0.77 0.99 0.98 0.99 0.99	0.99 0.90 0.38 0.99 0.91 0.95 0.98 0.79 0.99 1.00 1.00	0.92 0.87 0.69 0.98 0.86 0.92 0.96 0.78 0.99 0.98 0.99 0.93	0.93 0.87 0.67 0.98 0.87 0.93 0.93 0.96 0.78 0.99 0.98 0.99 0.93
Other Foods ALL FOODS Number of stores	0.97 0.94 9	1.00 0.96 154	1.00 0.96 163	1.00 0.97 14	1.00 0.94 138	1.00 0.95 152	1.01 0.97 6	0.99 0.91 55	0.99 0.91 61	0.99 0.96 29	1.00 0.95 347	1.00 0.95 376

Large Grocery Stores

Food Group		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat Fresh Poultry Fresh Fish	0.58	0.59	0.59	0.81 0.55 0.12	0.79	0.79	1.00 0.85 0.00	0.87 0.67 0.20	0.88	0.74 0.58 0.19	0.76 0.60 0.12	0.75
Processed Meat Packaged Meat	0.78	0.78	0.78	0.95	0.89	0.90	1.00	0.96	0.97	0.88	0.88	0.88
Fresh Produce Packaged Produce Dairy Products	0.70	0.71	0.71 0.58	0.89	0.88	0.89	0.97	0.93	0.94	0.82	0.85	0.85
Eggs Cereals, Grains Bakery Products	0.99 0.80 0.76	0.89 0.86 0.81	0.91 0.84 0.80	0.88	0.96	0.95	0.99 1.00 1.00	0.99 0.99 0.98	0.99	0.96	0.95	0.95
Dinner Mixtures Other Foods	0.63	0.54	0.57	0.75	0.80	0.79	0.96	0.90	0.91	0.74	0.76	0.76
ALL FOODS Number of stores	13	37	50	9	39	48	6	50	56	28	126	154

166

Average Level of Product Availability by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group Urban Mixed Rural Total High-High-High-Highpoverty Other poverty Total Other Total Other Total Other poverty poverty Fresh Meat 0.23 0.19 0.20 0.10 0.18 0.15 0.12 0.28 0.22 0.18 0.21 Fresh Poultry 0.25 0.12 0.17 0.03 0.07 0.06 0.03 0.13 0.10 0.16 0.11 Fresh Fish 0.03 0.02 0.03 0.03 0.00 0.01 0.00 0.03 0.02 0.02 0.02 Processed Neat Packaged Neat 0.70 0.61 0.64 0.55 0.59 0.57 0.69 0.70 0.67 0.62 0.69 0.41 0.36 0.60 0.41 0.39 0.39 0.38 0.41 0.38 0.40 0.40 0.45 0.51 0.49 0.34 0.63 0.38 0.30 0.33 0.48 Fresh Produce 0.40 0.39 0.29 0.41 0.58 0.55 Packaged Produce 0.60 0.57 0.61 0.61 0.61 0.69 0.39 Dairy Products 0.38 0.45 0.43 0.38 0.48 0.45 0.40 0.59 0.52 0.49 0.85 0.82 0.83 0.61 0.80 0.74 0.88 0.91 0.90 0.81 0.84

0.73

0.70

0.40

0.80

0.49

162

0.80

0.73

0.45

0.81

0.52

93

0.75

0.71

0.42

0.80

0.50

255

0.65

0.66

0.31

0.72

0.43

34

Total

0.20

0.13

0.02

0.64

0.41

0.38

0.60

0.45

0.83

0.76

0.73

0.44

0.81

0.51

455

Small Grocery Stores

Specialty Stores

0.77

0.76

0.44

0.51

66

0.73

0.73

0.40

0.81

0.48

100

0.67

0.74

0.44

0.47

36

0.87

0.81

0.61

0.87

0.60

64

0.74

0.72

0.42

0.49

163

0.80

0.78

0.55

0.84

0.55

100

0.77

0.73

0.45

0.83

0.52

292

Food Group		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat	0.32	0.26	0.28	0.22	0.33	0.31	0.00	0.39	0.36	0.28	0.30	0.30
Fresh Poultry	0.30	0.22	0.24	0.02	0.16	0.14	0.00	0.22	0.20	0.22	0.20	0.20
Fresh Fish	0.22	0.35	0.31	0.35	0.09	0.13	0.49	0.11	0.15	0.26	0.22	0.23
Processed Meat	0.28	0.22	0.24	0.38	0.25	0.27	0.00	0.43	0.39	0.29	0.26	0.26
Packaged Neat	0.14	0.16	0.15	0.11	0.11	0.11	0.05	0.13	0.13	0.13	0.13	0.13
Fresh Produce	0.10	0.11	0.11	0.10	0.09	0.09	0.00	0.15	0.14	0.10	0.11	0.11
Packaged Produce	0.14	0.12	0.13	0.13	0.13	0.13	0.11	0.12	0.12	0.14	0.13	0.13
airy Products	0.12	0.13	0.13	0.10	0.12	0.12	0.00	0.22	0.20	0.11	0.14	0.13
aas	0.41	. 0.32	0.34	0.37	0.21	0.23	0.00	0.27	0.25	0.38	0.27	0.29
ereals, Grains	0.18	0.14	0.15	0.14	0.10	0.11	0.01	0.12	0.10	0.16	0.12	0.13
akery Products	0.29	0.35	0.33	0.35	0.37	0.36	0.35	0.39	0.39	0.31	0.36	0.35
inner Mixtures	0.10	0.07	0.08	0.04	0.06	0.06	0.00	0.08	0.07	0.08	0.07	0.07
ther Foods	0.22	0.21	0.21	0.19	0.19	0.19	0.12	0.14	0.14	0.21	0.19	0.20
LL FOODS	0.21	0.20	0.21	0.19	0.19	0.19	0.07	0.24	0.22	0.20	0.20	0.20
lumber of stores	32	82	114	11	64	75	2	18	20	45	164	209

2

Eggs

Cereals, Grains

Bakery Products

Dinner Mixtures

Number of stores

Other Foods

ALL FOODS

167

Average Level of Product Availability by Food Group, Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Group		Hixed				Rural			Total			
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Neat Fresh Poultry Fresh Fish Processed Neat Packaged Meat Fresh Produce Packaged Produce Dairy Products Eggs Cereals, Grains Bakery Products Dinner Mixtures Other Foods ALL FOODS	0.06 0.05 0.00 0.63 0.44 0.29 0.61 0.42 0.82 0.79 0.79 0.79 0.51 0.87 0.44	0.08 0.03 0.02 0.74 0.40 0.28 0.61 0.57 0.88 0.82 0.82 0.82 0.82 0.54 0.90 0.52	0.08 0.03 0.01 0.72 0.41 0.28 0.61 0.55 0.87 0.82 0.82 0.82 0.53 0.90 0.51 288	0.07 0.01 0.02 0.64 0.39 0.18 0.56 0.38 0.80 0.64 0.77 0.37 0.83 0.44	0.03 0.01 0.00 0.71 0.42 0.18 0.60 0.56 0.89 0.80 0.84 0.48 0.89 0.49 0.49 0.49	0.04 0.01 0.00 0.69 0.42 0.18 0.59 0.53 0.88 0.78 0.82 0.48 0.48 0.48 0.48	0.01 0.00 0.65 0.41 0.16 0.52 0.44 0.73 0.52 0.73 0.38 0.76 0.41 23	0.10 0.03 0.00 0.69 0.45 0.25 0.67 0.59 0.89 0.80 0.81 0.55 0.89 0.53 66	0.08 0.02 0.00 0.68 0.44 0.23 0.63 0.55 0.85 0.73 0.79 0.51 0.86 0.50 89	0.05 0.02 0.01 0.64 0.41 0.22 0.57 0.41 0.79 0.68 0.77 0.43 0.43 0.45 113	0.06 0.02 0.01 0.72 0.42 0.23 0.62 0.57 0.88 0.81 0.83 0.51 0.89 0.51 537	0.06 0.02 0.01 0.71 0.42 0.23 0.61 0.54 0.87 0.79 0.82 0.50 0.88 0.50 650

Grocery/Gas Outlets

Food Group	Urban			Mixed			Rural				Total	
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Neat Fresh Poultry Fresh Fish Processed Neat Packaged Meat Fresh Produce Packaged Produce Dairy Products Eggs Cereals, Grains Bakery Products Dinner Mixtures Other Foods ALL FOODS	0.05 0.00 0.00 0.62 0.37 0.07 0.43 0.34 0.75 0.71 0.76 0.34 0.76 0.34 0.76	0.02 0.00 0.78 0.44 0.30 0.65 0.65 0.84 0.86 d.88 0.65 0.94 0.54	0.02 0.00 0.76 0.42 0.26 0.61 0.60 0.82 0.83 0.85 0.60 0.91 0.52 67	0.06 0.05 0.00 0.62 0.35 0.16 0.63 0.43 0.91 0.72 0.77 0.31 0.88 0.46 12	0.05 0.00 0.74 0.45 0.27 0.68 0.63 0.94 0.86 0.87 0.59 0.93 0.54 78	0.05 0.01 0.00 0.72 0.44 0.25 0.67 0.61 0.94 0.84 0.86 0.55 0.92 0.53 90	0.14 0.01 0.00 0.85 0.51 0.25 0.64 0.53 0.94 0.81 0.86 0.48 0.89 0.53 19	0.08 0.02 0.00 0.73 0.48 0.31 0.68 0.58 0.95 0.80 0.86 0.57 0.87 0.87 0.53 78	0.10 0.02 0.00 0.76 0.49 0.29 0.67 0.57 0.95 0.80 0.86 0.55 0.87 0.53 97	0.09 0.02 0.00 0.72 0.42 0.17 0.58 0.45 0.88 0.45 0.88 0.76 0.80 0.39 0.85 0.47 43	0.05 0.01 0.00 0.75 0.46 0.29 0.67 0.62 0.92 0.84 0.87 0.60 0.91 0.54 211	0.06 0.01 0.00 0.75 0.45 0.27 0.66 0.59 0.91 0.82 0.86 0.56 0.56 0.90 0.53 254

168

Average Level of Product Availability by Food Group, Degree of Urbanization, Poverty Level and Store Type

Other Stores

Food Group	Urban				Mixed			Rural			Total	
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat Fresh Poultry Fresh Fish Processed Meat Packaged Neat Fresh Produce Packaged Produce Dairy Products Eggs Cereals, Grains Bakery Products Dinner Mixtures Other Foods ALL FOODS Number of stores	0.05 0.02 0.12 0.13 0.45 0.18 0.14 0.45 0.21 0.25 0.10 0.28 0.20 42	0.08 0.06 0.03 0.24 0.18 0.27 0.24 0.26 0.45 0.35 0.46 0.39 0.26 85	0.07 0.05 0.03 0.20 0.16 0.33 0.22 0.22 0.45 0.30 0.39 0.39 0.35 0.24 127	0.12 0.09 0.11 0.28 0.22 0.44 0.30 0.17 0.37 0.33 0.40 0.21 0.39 0.28 19	0.11 0.07 0.04 0.21 0.32 0.29 0.28 0.49 0.34 0.40 0.34 0.40 0.39 0.28 82	0.11 0.07 0.05 0.22 0.21 0.34 0.29 0.26 0.47 0.34 0.40 0.40 0.21 0.39 0.28 101	0.05 0.00 0.47 0.34 0.40 0.39 0.31 0.63 0.53 0.50 0.50 0.29 0.56 0.35 19	0.22 0.10 0.00 0.46 0.38 0.47 0.56 0.54 0.54 0.54 0.66 0.66 0.43 0.69 0.49 33	0.16 0.05 0.00 0.47 0.36 0.44 0.50 0.46 0.73 0.60 0.60 0.38 0.65 0.44 52	0.06 0.03 0.04 0.20 0.44 0.25 0.19 0.47 0.31 0.34 0.37 0.36 80	0.12 0.07 0.03 0.26 0.22 0.32 0.31 0.31 0.52 0.39 0.47 0.47 0.24 0.24 0.24 0.30 200	0.10 0.06 0.03 0.22 0.35 0.29 0.28 0.51 0.37 0.43 0.43 0.42 0.42 0.29 280

All Store Types

Food Group		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
Fresh Meat	0.22	0.30	0.28	0.23	0.30	0.29	0.18	0.38	0.33	0.21	0.32	0.30
Fresh Poultry	0.21	0.25	0.24	0.15	0.24	0.22	0.10	0.26	0.23	0.17	0.25	0.23
Fresh Fish	0.07	0.21	0.18	0.10	0.15	0.14	0.04	0.09	0.08	0.07	0.16	0.14
Processed Meat	0.54	0.66	0.63	0.60	0.66	0.65	0.69	0.75	0.73	0.59	0.68	0.66
Packaged Meat	0.36	0.44	0.42	0.41	0.47	0.46	0.47	0.55	0.53	0.40	0.47	0.46
Fresh Produce	0.36	0.43	0.41	0.35	0.39	0.39	0.34	0.50	0.46	0.36	0.43	0.41
Packaged Produce	0.48	0.59	0.56	0.56	0.62	0.61	0.59	0.72	0.69	0.53	0.62	0.60
airy Products	0.33	0.52	0.48	0.40	0.54	0.52	0.45	0.62	0.58	0.38	0.55	0.51
aas	0.73	0.78	0.77	0.70	0.80	0.78	0.81	0.90	0.88	0.74	0.81	0.80
ereals Grains	0.62	0.72	0.70	0.62	0.73	0.71	0.66	0.82	0.78	0.63	0.74	0.72
akery Products	0.61	0.74	0.71	0.69	0.78	0.76	0.74	0.84	0.81	0.66	0.77	0.75
inner Mixtures	0.37	0.51	0.48	0.38	0.53	0.50	0.46	0.63	0.59	0.39	0.54	0.51
ther Foods	0.66	0.78	0.75	0.73	0.79	0.78	0.77	0.86	0.84	0.70	0.80	0.78
LI FOODS	0.44	0.55	0.52	0.47	0.56	0.54	0.49	0.63	0.60	0.46	0.57	0.54
Number of stores	245	819	1064	145	694	839	111	364	475	501	1877	2378

169

Average Level of Variety in Forms by Food Group, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Group		Urban						Rural			Total	
	High- poverty	Other	Total									
Meat	1.00	0.99	0.99	1.00	0.98	0.98	1.00	0.97	0.97	1.00	0.98	0.98
Poultry	0.99	0.96	0.96	1.00	0.91	0.92	1.00	0.84	0.86	1.00	0.92	0.93
Fish	0.57	0.87	0.85	0.57	0.76	0.74	0.65	0.55	0.56	0.58	0.78	0.76
Produce	1.00	0.99	1.00	1.00	0.98	0.98	1.00	0.96	0.97	1.00	0.99	0.99
Dairy Products	0.99	1.00	1.00	1.00	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Eggs	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Cereals, Grains	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Bakery Products	1.00	0.99	0.99	1.00	1.00	1.00	1.00	0.99	0.99	1.00	0.99	0.99
Dinner Mixtures	0.72	0.73	0.73	0.72	0.73	0.73	0.75	0.69	0.70	0.72	0.73	0.73
Other Foods	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ALL FOODS	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Number of stores	9	154	163	14	138	152	6	55	61	29	347	376

Large Grocery Stores

Food Group		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
Meat	0.89	0.77	0.80	0.89	0.93	0.92	1.00	0.97	0.97	0.92	0.89	0.90
Poultry	0.61	0.62	0.62	0.66	0.74	0.72	1.00	0.84	0.86	0.71	0.74	0.74
Fish	0.51	0.37	0.41	0.39	0.36	0.36	0.34	0.47	0.46	0.44	0.40	0.41
Produce	0.88	0.93	0.91	0.92	0.99	0.98	1.00	1.00	1.00	0.92	0.97	0.96
Dairy Products	0.82	0.90	0.88	0.99	0.99	0.99	1.00	1.00	1.00	0.91	0.97	0.96
Foos	0.99	0.89	0.91	0.88	0.96	0.95	0.99	0.99	0.99	0.96	0.95	0.95
Cereals, Grains	1.00	0.97	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99
Rakery Products	0.82	0.88	0.87	0.93	0.97	0.97	1.00	1.00	1.00	0.89	0.96	0.94
Dimor Mixtures	0.57	0.46	0.49	0.59	0.66	0.65	0.75	0.71	0.72	0.61	0.62	0.62
Other Foods	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ALL FOODS	0.99	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00
Number of stores	13	37	50	9	39	48	6	50	56	28	126	154

Average Level of Variety in Forms by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
Meat	0.64	0.53	0.57	0.42	0.49	0.47	0.62	0.58	0.60	0.59	0.53	0.55
Poultry	0.40	0.26	0.31	0.06	0.12	0.10	0.06	0.21	0.16	0.26	0.22	0.23
Fish	0.29	0.29	0.29	0.26	0.26	0.26	0.28	0.32	0.30	0.28	0.29	0.29
Produce	0.82	0.84	0.83	0.71	0.82	0.78	0.82	0.87	0.85	0.80	0.84	0.82
airy Products	0.86	0.86	0.86	0.80	0.91	0.88	0.85	0.95	0.92	0.85	0.89	0.88
lggs	0.85	0.82	0.83	0.61	0.80	0.74	0.88	0.91	0.90	0.81	0.84	0.83
ereals, Grains	0.99	0.98	0.98	0.97	0.97	0.97	0.97	0.98	0.98	0.98	0.98	0.98
Bakery Products	0.82	0.79	0.80	0.77	0.86	0.83	0.87	0.87	0.87	0.82	0.82	0.82
inner Mixtures	0.41	0.34	0.37	0.31	0.40	0.37	0.46	0.53	0.51	0.40	0.39	0.40
ther Foods	1.00	0.99	0.99	1.00	0.99	0.99	1.00	0.98	0.99	1.00	0.99	0.99
LL FOODS	0.94	0.97	0.96	0.90	0.96	0.94	0.97	0.97	0.97	0.94	0.97	0.96
lumber of stores	93	162	255	34	66	100	36	64	100	163	292	455

Small Grocery Stores

Specialty Stores

Food Group		Urban			Mixed			Rural		Total		
	High- poverty	Other	Total									
Meat	0.45	0.29	0.34	0.31	0.36	0.36	0.00	0.49	0.44	0.40	0.34	0.35
Poultry	0.43	0.28	0.32	0.09	0.22	0.20	0.00	0.27	0.25	0.33	0.26	0.27
Fish	0.24	0.33	0.31	0.28	0.13	0.15	0.35	0.11	0.14	0.25	0.23	0.24
Produce	0.30	0.31	0.31	0.27	0.30	0.30	0.06	0.26	0.24	0.28	0.30	0.30
Dairy Products	0.30	0.37	0.35	0.33	0.36	0.36	0.00	0.51	0.46	0.29	0.38	0.36
Eggs	0.41	0.32	0.34	0.37	0.21	0.23	0.00	0.27	0.25	0.38	0.27	0.29
Cereals, Grains	0.54	0.43	0.46	0.36	0.42	0.41	0.49	0.17	0.20	0.49	0.40	0.42
Bakery Products	0.36	0.46	0.43	0.42	0.47	0.46	0.35	0.45	0.44	0.37	0.46	0.44
inner Mixtures	0.10	0.09	0.09	0.03	0.07	0.07	0.00	0.08	0.07	0.08	0.08	0.08
ther Foods	0.58	0.63	0.61	0.52	0.61	0.60	0.78	0.44	0.47	0.58	0.60	0.59
LL FOODS	0.74	0.82	0.80	0.82	0.71	0.73	0.89	0.78	0.79	0.76	0.77	0.77
lumber of stores	32	82	114	11	64	75	2	18	20	45	164	209

Average Level of Variety in Forms by Food Group, Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Group		Urban			Mixed			Rural		Total		
	High- poverty	Other	Total									
Meat	0.48	0.53	0.52	0.49	0.46	0.46	0.37	0.58	0.53	0.46	0.51	0.50
Poultry	0.07	0.11	0.10	0.02	0.02	0.02	0.00	0.04	0.03	0.04	0.06	0.06
Fish	0.27	0.28	0.28	0.28	0.27	0.27	0.25	0.28	0.27	0.27	0.27	0.27
Produce	0.80	0.83	0.82	0.71	0.75	0.74	0.75	0.79	0.78	0.75	0.79	0.78
Dairy Products	0.92	0.95	0.95	0.88	0.97	0.96	0.89	0.98	0.96	0.90	0.96	0.95
Eggs	0.82	0.88	0.87	0.80	0.89	0.88	0.73	0.89	0.85	0.79	0.88	0.87
Cereals, Grains	1.00	0.98	0.98	0.96	0.97	0.97	0.91	0.98	0.97	0.97	0.98	0.97
Bakery Products	0.90	0.88	0.89	0.85	0.88	0.87	0.83	0.89	0.87	0.87	0.88	0.88
Dinner Mixtures	0.42	0.46	0.46	0.32	0.44	0.42	0.36	0.51	0.48	0.37	0.46	0.44
Other Foods	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ALL FOODS	0.98	0.98	0.98	0.97	0.99	0.99	0.95	0.99	0.98	0.97	0.79	0.98
Number of stores	44	244	288	46	227	273	23	66	89	113	537	650

Grocery/Gas Outlets

Food Group		Urban			Mixed			Rural		Total		
	High- poverty	Other	Total									
Meat	0.61	0.35	0.39	0.70	0.51	0.54	0.70	0.53	0.56	0.67	0.48	0.51
Poultry	0.00	0.00	0.00	0.08	0.02	0.03	0.06	0.03	0.04	0.05	0.02	0.03
Fish	0.24	0.29	0.28	0.27	0.29	0.29	0.30	0.30	0.30	0.28	0.29	0.29
Produce	0.38	0.86	0.78	0.62	0.85	0.82	0.75	0.80	0.79	0.61	0.84	0.80
Dairy Products	0.81	0.99	0.96	0.97	0.98	0.98	0.94	0.96	0.96	0.91	0.98	0.97
Foos	0.75	0.84	0.82	0.91	0.94	0.94	0.94	0.95	0.95	0.88	0.92	0.91
Coreale Grains	0.91	1.00	0.99	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.98	0.98
Rakery Products	0.86	0.92	0.91	0.87	0.92	0.91	0.92	0.92	0.92	0.89	0.92	0.91
inner Mixtures	0.22	0.52	0.47	0.25	0.54	0.50	0.46	0.54	0.52	0.33	0.53	0.50
other Foode	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
LI COOS	0.97	1.00	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
lumber of stores	12	55	67	12	78	90	19	78	97	43	211	254

172

Average Level of Variety in Forms by Food Group, Degree of Urbanization, Poverty Level and Store Type

Other Stores

Food Group		Urban			Mixed			Rural		Total		
	High- poverty	Other	Total	Nigh- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Meat	0.13	0.22	0.19	0.30	0.20	0.22	0.42	0.48	0.46	0.24	0.25	0.25
Poultry	0.03	0.12	0.09	0.11	0.09	0.09	0.00	0.19	0.12	0.04	0.12	0.10
Fish	0.11	0.15	0.14	0.19	0.13	0.14	0.19	0.22	0.21	0.15	0.15	0.15
Produce	0.60	0.58	0.59	0.67	0.54	0.57	0.68	0.81	0.77	0.64	0.60	0.61
Dairy Products	0.36	0.56	0.50	0.51	0.57	0.56	0.62	0.86	0.77	0.45	0.61	0.57
Eggs	0.45	0.45	0.45	0.37	0.49	0.47	0.63	0.79	0.73	0.47	0.52	0.51
Cereals, Grains	0.46	0.60	0.56	0.58	0.54	0.55	0.68	0.79	0.75	0.54	0.61	0.59
Bakery Products	0.38	0.56	0.50	0.46	0.47	0.47	0.53	0.76	0.68	0.43	0.56	0.52
Dinner Mixtures	0.14	0.15	0.14	0.17	0.23	0.22	0.24	0.42	0.36	0.17	0.23	0.21
Other Foods	0.57	0.70	0.66	0.58	0.68	0.66	1 0.80	0.87	0.84	0.63	0.72	0.69
ALL FOODS	0.81	0.85	0.83	0.77	0.79	0.78	0.84	0.94	0.91	0.81	0.84	0.83
Number of stores	42	85	127	19	82	101	19	33	52	80	200	280

All Store Types

Food Group		Urban			Mixed			Rural		Total		
	High- poverty	Other	Total									
Meat	0.53	0.56	0.55	0.53	0.56	0.55	0.58	0.67	0.65	0.54	0.58	0.57
Poultry	0.30	0.33	0.33	0.19	0.28	0.26	0.14	0.33	0.28	0.23	0.31	0.29
Fish	0.27	0.39	0.36	0.30	0.34	0.34	0.28	0.34	0.33	0.28	0.36	0.35
Produce	0.70	0.79	0.77	0.70	0.76	0.75	0.78	0.84	0.82	0.72	0.79	0.77
Dairy Products	0.71	0.84	0.81	0.80	0.87	0.86	0.84	0.94	0.92	0.76	0.87	0.85
Eggs	0.73	0.78	0.77	0.70	0.80	0.78	0.81	0.90	0.88	0.74	0.81	0.80
Cereals, Grains	0.84	0.89	0.88	0.88	0.88	0.88	0.90	0.92	0.92	0.86	0.89	0.89
Bakery Products	0.71	0.81	0.79	0.77	0.82	0.81	0.82	0.89	0.87	0.75	0.83	0.81
inner Mixtures	0.34	0.42	0.40	0.32	0.46	0.44	0.42	0.55	0.52	0.35	0.46	0.44
ther Foods	0.87	0.93	0.92	0.91	0.92	0.92	0.96	0.96	0.96	0.90	0.93	0.93
LL FOODS	0.90	0.95	0.94	0.92	0.94	0.94	0.95	0.97	0.97	0.92	0.95	0.95
lumber of stores	245	819	1064	145	694	839	111	364	475	501	1877	2378

173

Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Group and Level		Urban			Mixed			Rural			Total	
of Variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 100.00 0	0 0 98.60 1.40	0 0 98.67 1.33	0 0 100.00 0	0 0 97.06 2.94	0 0 97.32 2.68	0 0 100.00 0	0 0 96.53 3.47	0 0 96.86 3.14	0 0 100.00 0	0 0 97.68 2.32	0 0 97.85 2.15
PROCESSED MEAT Sufficient Minimal No variety Not Available	78.58 21.42 0 0	92.05 3.85 3.42 0.68	91.33 4.79 3.23 0.65	100.00 0 0	90.66 5.15 4.20 0	91.49 4.69 3.82 0	100.00 0 0	78.80 10.65 8.78 1.77	80.81 9.64 7.95 1.60	93.12 6.88 0 0	89.46 5.41 4.55 0.58	89.73 5.52 4.21 0.54
FRESH POULTRY Sufficient Minimal No variety Not Available	0 65.53 34.47 0	20.29 54.43 21.38 3.91	19.20 55.02 22.08 3.70	7.35 35.72 56.92 0	11.75 56.43 23.15 8.67	11.36 54.59 26.15 7.90	0 16.44 83.56 0	1.94 36.84 45.43 15.80	1.75 34.90 49.05 14.30	3.51 41.39 55.10 0	14.12 52.49 25.78 7.61	13.33 51.67 27.96 7.04
FRESH SEAFOOD Sufficient Minimal No variety Not Available	0 0 33.05 66.95	0 0 83.11 16.89	0 0 80.43 19.57	0 0 35.72 64.28	0 0 66.65 33.35	0 0 63.90 36.10	0 0 49.77 50.23	0 0 33.03 66.97	0 0 34.62 65.38	0 0 37.70 62.30	0 0 68.94 31.06	0 0 66.63 33.37
PACKAGED MEAT Sufficient Minimal No variety Not Available	12.20 64.54 23.26 0	24.25 65.08 10.67 0	23.60 65.05 11.35 0	21.87 78.13 0	19.08 71.56 9.36 0	19.33 72.14 8.53 0	0 100.00 0 0	14.85 62.22 22.93 0	13.44 65.80 20.75 0	14.34 78.19 7.47 0	20.78 67.17 12.05 0	20.30 67.99 11.71 0
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 0 100.00 0	0 0 99.42 0.58	0 0 99.45 0.55	0 0 100.00 0	0 0 97.86 2.14	0 0 98.05 1.95	0 0 100.00 0	0 94.69 5.31	0 0 95.19 4.81	0 0 100.00 0	0 0 98.08 1.92	0 0 98.22 1.78
PACKAGED PRODUCE Sufficient Minimal No variety Not Available	44.40 44.40 11.21 0	89.39 5.85 4.75 0	86.98 7.92 5.10 0	100.00 0 0	86.23 5.11 8.66 0	87.45 4.66 7.89 0	100.00 0 0 0	65.79 18.13 16.08 0	69.03 16.41 14.55 0	82.15 14.25 3.60 0	84.51 7.46 8.03 0	84.33 7.96 7.70 0
Number of stores	9	154	163	14	138	152	6	55	61	29	347	376

174

Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Large Grocery Stores

Food Group and Level		Urban			Mixed			Rural			Total	
of Variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 92.13 7.87	0 0 75.50 24.50	0 0 79.76 20.24	0 0 88.64 11.36	0 0 92.24 7.76	0 0 91.59 8.41	0 0 100.00 0	0 0 96.01 3.99	0 0 96.42 3.58	0 0 92.67 7.33	0 0 88.66 11.34	0 0 89.37 10.63
PROCESSED MEAT Sufficient Minimal No variety Not Available	38.58 30.04 15.55 15.83	24.17 34.81 24.83 16.20	27.86 33.59 22.45 16.11	43.51 34.07 22.42 0	38.06 48.81 13.12 0	39.05 46.15 14.80 0	83.33 16.67 0 0	64.06 31.85 4.09 0	66.05 30.28 3.67 0	49.40 28.53 14.47 7.60	44.02 37.96 13.13 4.89	44.98 36.28 13.37 5.38
FRESH POULTRY Sufficient Minimal No variety Not Available	0 8.06 53.74 38.20	0 5.55 56.36 38.08	0 6.20 55.69 38.11	0 10.77 55.46 33.78	0 32.99 50.93 26.08	0 20.79 51.74 27.47	0 0 100.00 0	0 16.08 68.20 15.72	0 14.42 71.48 14.10	0 7.24 63.87 28.89	0 15.03 59.32 25.66	0 13.64 60.13 26.24
FRESH SEAFOOD Sufficient Minimal No variety Not Available	0 0 31.86 68.14	0 0 8.36 91.64	0 0 14.38 85.62	0 0 11.50 88.50	0 0 4.90 95.10	0 0 6.10 93.90	0 0 0 100.00	0 0 20.14 79.86	0 0 18.07 81.93	0 0 18.89 81.11	0 0 11.90 88.10	0 0 13.15 86.85
PACKAGED MEAT Sufficient Minime! No variety Not Available	0 38.10 61.90 0	2.61 21.39 73.49 2.51	1.94 25.67 70.52 1.87	0 32.74 67.26 0	5.13 35.69 59.18 f.	4.21 35.16 60.63 0	0 83.78 16.22 0	4.01 64.44 31.54 0	3.60 66.44 29.96 0	0 45.90 54.10 0	3.93 42.60 52.71 0.76	3.23 43.19 52.95 0.62
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 0 85.51 14.49	0 0 94.68 5.32	0 0 92.33 7.67	0 0 88.64 11.36	0 0 100.00 0	0 0 97.95 2.05	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 89.49 10.51	0 0 98.39 1.61	0 0 96.81 3.19
PACKAGED PRODUCE Sufficient Minimal No variety Not Available	"0 53.93 46.07 0	5.32 43.14 51.54 0	3.96 45.91 50.14 0	21.98 66.67 11.36 0	25.30 43.55 31.15 0	24.70 47.72 27.58 0	67.11 32.89 0 0	21.93 70.22 7.85 0	26.59 66.37 7.04 0	20.78 53.55 25.67 0	17.95 53.84 28.20 0	18.46 53.79 27.75 0
lumber of stores	13	37	50	9	39	48	6	50	56	28	126	154

175

Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Small Grocery Stores

Food Group and Level		Urban			Mixed			Rural			Total	
or variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 59.79 40.21	0 0 46.99 53.01	0 0 51.59 48.41	0 0 32.24 67.76	0 0 40.78 59.22	0 0 37.93 62.07	0 0 55.54 44.46	0 0 50.28 49.72	0 0 52.14 47.86	0 0 53.30 46.70	0 0 46.32 53.68	0 0 48.78 51.22
PROCESSED MEAT Sufficient Minimal No variety Not Available	2.01 40.48 41.34 16.17	1.22 23.96 52.61 22.21	1.51 29.89 48.56 20.04	0 26.64 49.88 23.47	4.58 24.06 50.13 21.24	3.05 24.92 50.05 21.98	0 13.68 69.85 16.47	7.90 44.03 32.30 15.77	5.11 33.31 45.56 16.02	1.17 31.96 49.15 17.71	3.38 28.24 47.75 20.63	2.60 29.55 48.24 19.60
FRESH POULTRY Sufficient Minimal No variety Not Available	0 2.12 38.79 59.10	0 0.60 25.56 73.84	0 1.15 30.31 68.54	0 0 5.71 94.29	0 0 12.18 87.82	0 0 10.03 89.97	0 0 5.50 94.50	0 0 20.58 79.42	0 0 15.26 84.74	0 1.24 24.98 73.78	0 0.34 21.55 78.11	0 0.66 22.76 76.58
FRESH SEAFOOD Sufficient Minimal No variety Not Available	0 0 3.12 96.88	0 0 2.46 97.54	0 0 2.70 97.30	0 0 2.86 97.14	0 0 100.00	0 0.95 99.05	0 0 100.00	0 0 3.05 96.95	0 0 1.97 98.03	0 0 2.40 97.60	0 0 2.04 97.96	0 0 2.17 97.83
PACKAGED MEAT Sufficient Minimal No variety Not Available	0 0 94.72 5.28	0 0.62 94.98 4.40	0 0.40 94.89 4.71	0 0 100.00 0	0 1.47 92.31 6.22	0 0.98 94.88 4.15	0 0 100.00 0	0 9.48 87.27 3.25	0 6.13 91.77 2.10	0 0 96.92 3.08	0 2.69 92.75 4.55	0 1.74 94.22 4.04
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 0 79.76 20.24	0 0 85.07 14.93	0 0 83.16 16.84	0 0 65.18 34.82	0 0 80.32 19.68	0 0 75.28 24.72	0 0 78.18 21.82	0 0 84.94 15.06	0 0 82.55 17.45	0 0 76.47 23.53	0 0 83.99 16.01	0 0 81.34 18.66
PACKAGED PRODUCE Sufficient Minimel No variety Not Available	¹¹ 0 12.50 87.50 0	0 8.44 90.38 1.19	0 9.90 89.34 0.76	0 11.58 88.42 0	1.47 7.69 89.34 1.51	0.98 8.98 89.03 1.00	0 2.71 97.29 0	1.58 26.72 70.04 1.66	1.02 18.24 79.66 1.08	0 10.23 89.77 0	0.66 12.15 85.83 1.36	0.43 11.48 87.22 0.88
Number of stores	93	162	255	34	66	100	36	64	100	163	292	455

11

Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Specialty Stores

Food Group and Level		Urban			Mixed			Rural			Total	
or variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 46.73 53.27	0 0 30.92 69.08	0 0 35.31 64.69	0 0 27.97 72.03	0 0 37.84 62.16	0 0 36.42 63.58	0 0 0 100.00	0 0 49.86 50.14	0 0 45.11 54.89	0 0 40.35 59.65	0 0 35.61 64.39	0 0 36.62 63.38
PROCESSED MEAT Sufficient Minimal No variety Not Available	3.10 9.72 27.87 59.31	3.71 6.19 14.75 75.35	3.54 7.17 18.39 70.90	0 18.49 27.49 54.02	1.59 7.79 25.27 65.36	1.36 9.32 25.59 63.73	0 0 0 100.00	5.33 5.62 38.98 50.07	4.83 5.08 35.26 54.83	2.24 11.38 26.61 59.77	3.07 6.74 21.39 68.80	2.89 7.73 22.50 66.87
FRESH POULTRY Sufficient Minimal No variety Not Available	0 6.59 37.16 56.25	0 3.71 24.74 71.55	0 4.51 28.19 67.31	0 0 9.24 90.76	0 0 22.10 77.90	0 0 20.26 79.74	0 0 0 100.00	0 0 27.52 72.48	0 0 24.90 75.10	0 4.76 29.02 66.22	0 1.89 24.03 74.08	0 2.50 25.10 72.40
FRESH SEAFOOD Sufficient Minimal No variety Not Available	0 0 22.15 77.85	0 0 34.52 65.48	0 0 31.08 68.92	0 0 35.41 64.59	0 0 9.11 90.89	0 0 12.88 87.12	0 0 49.32 50.68	0 0 10.95 89.05	0 0 14.61 85.39	0 0 26.42 73.58	0 0 22.26 77.74	0 0 23.14 76.86
PACKAGED MEAT Sufficient Minimal No variety Not Available	0 3.29 44.30 52.41	0 0 51.59 48.41	0 0.91 49.56 49.52	0 0 45.14 54.86	0 0 45.68 54.32	0 0 45.61 54.39	0 0 49.32 50.68	5.33 0 27.67 67.00	4.83 0 29.73 65.44	0 2.38 44.71 52.92	0.58 0 46.75 52.68	0.45 0.51 46.31 52.73
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 0 28.93 71.07	0 0 30.39 69.61	0 0 29.98 70.02	0 0 27.49 72.51	0 0 30.01 69.99	0 0 29.65 70.35	0 0 100.00	0 0 33.29 66.71	0 0 30.12 69.88	0 0 27.38 72.62	0 0 30.56 69.44	0 0 29.88 70.12
PACKAGED PRODUCE Sufficient Minimal No variety Not Available	"0 0 50.33 49.67	0 0 62.41 37.59	0 0 59.06 40.94	0 0 54.26 45.74	0 0 64.27 35.73	0 0 62.84 37.16	0 0 100.00 0	5.33 0 22.40 72.26	4.83 0 29.79 65.38	0 0 53.34 46.66	0.58 0 58.80 40.62	0.45 0 57.64 41.91
lumber of stores	32	82	114	11	64	75	2	18	20	45	164	209

177

· * . .

1. .

1.24. 1 8

Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Group and Level of Variety in Brands		Urban			Mixed			Rural			Total	
of Variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Ninimal No variety Not Available	0 0 38.54 61.46	0 0 43.88 56.12	0 0 43.09 56.91	0 0 41.29 58.71	0 0 33.71 66.29	0 0 34.95 65.05	0 0 21.47 78.53	0 0 49.79 50.21	0 0 42.60 57.40	0 0 36.25 63.75	0 0 40.35 59.65	0 0 39.66 60.34
PROCESSED MEAT Sufficient Minimal No variety Not Available	0 39.15 43.18 17.66	0.78 31.17 55.75 12.31	0.66 32.36 53.87 13.10	0 19.78 58.59 21.63	0.45 26.38 62.50 10.67	0.37 25.30 61.86 12.47	0 17.80 73.71 8.49	3.15 22.99 65.10 8.77	2.35 21.67 67.28 8.70	0 27.12 55.45 17.43	0.92 28.20 59.67 11.20	0.77 28.02 58.96 12.26
FRESH POULTRY Sufficient Minimal No variety Not Available	0 0 6.96 93.04	0 0 10.75 89.25	0 0 10.18 89.82	0 0 2.10 97.90	0 0 1.83 98.17	0 0 1.87 98.13	0 0 100.00	0 0 3.*9 96.81	0 0 2.38 97.62	0 0 3.62 96.38	0 0 6.13 93.87	0 0 5.71 94.29
FRESH SEAFOOD Sufficient Minimal No variety Not Available	0 0 0 100.00	0 0 1.62 98.38	0 0 1.38 98.62	0 0 2.10 97.90	0 0 0 100.00	0 0.35 99.65	0 0 100.00	0 0 100.00	0 0 0 100.00	0 0 0.85 99.15	0 0.75 99.25	0 0.77 99.23
PACKAGED MEAT Sufficient Minimal No variety Not Available	0 0 97.91 2.09	0 0 97.22 2.78	0 0 97.32 2.68	0 0 97.90 2.10	0 0.44 96.47 3.09	0 0.37 96.70 2.93	0 0 100.00 0	0 1.58 96.99 1.43	0 1.18 97.75 1.06	0 0 98.32 1.68	0 0.37 96.88 2.75	0 0.31 97.12 2.57
FRESH PRODUCE Sufficient Ninimal No variety Not Available	0 0 76.16 23.84	0 0 80.71 19.29	0 0 80.03 19.97	0 0 67.82 32.18	0 0 69.02 30.98	0 0 68.82 31.18	0 0 73.82 26.18	0 0 73.21 26.79	0 0 73.37 26.63	0 0 72.35 27.65	0 0 74.95 25.05	0 0 74.51 25.49
PACKAGED PRODUCE Sufficient Minimal No variety Not Available	1 0 4.58 95.42 0	0 2.13 97.51 0.37	0 2.49 97.20 0.31	0 2.22 97.78 0	0 1.82 98.18 0	0 1.89 98.11 0	0 0 100.00 0	0 12.18 87.82 0	0 9.08 90.92 0	0 2.72 97.28 0	0 3.20 96.63 0.17	0 3.12 96.74 0.14
lumber of stores	44	244	288	46	227	273	23	66	89	113	537	650

13
Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Level of Variety in Brands		Urban		1	Mixed			Rural		Total		
of Variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 57.76 42.24	0 0 18.05 81.95	0 0 24.76 75.24	0 0 66.74 33.26	0 0 39.91 60.09	0 0 43.40 56.60	0 0 63.60 36.40	0 0 40.51 59.49	0 0 44.97 55.03	0 0 62.84 37.16	0 0 34.20 65.80	0 0 38.90 61.10
PROCESSED MEAT Sufficient Minimal No variety Not Available	0 17.07 66.19 16.74	0 57.55 35.40 7.05	0 50.71 40.60 8.69	0 17.63 66.41 15.96	0 36.41 57.22 6.37	0 33.96 58.42 7.62	0 27.05 67.78 5.17	2.44 26.05 66.57 4.95	1.97 26.24 66.80 4.99	0 21.61 66.95 11.44	0.88 38.40 54.68 6.04	0.74 35.65 56.69 6.93
FRESH POULTRY Sufficient Minimal No variety Not Available	0 0 100.00	0 0 0 100.00	0 0 100.00	0 0 8.09 91.91	0 0 1.28 98.72	0 0 2.16 97.84	0 0 5.31 94.69	0 0 2.56 97.44	0 0 3.09 96.91	0 0 4.60 95.40	0 0 1.39 98.61	0 0 1.92 98.08
FRESH SEAFOOD Sufficient Minimal No variety Not Available	0 0 100.00	0 0 0 100.00	0 0 0 100.00	0 0 0 100.00	0 0 100.00	0 0 0 100.00	0 0 0 100.00	0 0 100.00	0 0 0 100.00	0 0 100.00	0 0 0 100.00	0 0 100.00
PACKAGED MEAT Sufficient Minimal No variety Not Available	0 0 91.24 8.76	0 0 98.15 1.85	0 0 96.99 3.01	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 97.56 2.44	0 0 98.03 1.97	0 0 97.54 2.46	0 0 98.62 1.38	0 0 98.44 1.56
RESH PRODUCE Sufficient Minimal Io variety Iot Available	0 0 17.85 82.15	0 0 83.24 16.76	0 0 72.19 27.81	0 0 51.11 48.89	0 0 82.30 17.70	0 0 78.24 21.76	0 0 69.26 30.74	0 0 74.75 25.25	0 0 73.69 26.31	0 0 49.75 50.25	0 0 79.83 20.17	0 0 74.89 25.11
PACKAGED PRODUCE Sufficient finimal lo variety lot Available	0 0 100.00 0	0 5.41 94.59 0	0 4.49 95.51 0	0 0 100.00 0	0 7.43 92.57 0	0 6.46 93.54 0	0 5.31 94.69 0	0 8.81 91.19 0	0 8.13 91.87 0	0 2.33 97.67 0	0 7.38 92.62 0	0 6.55 93.45 0
umber of stores	12	55	67	12	78	90	19	78	97	43	211	254

Grocery/Gas Outlets

179

Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Other Stores

Food Group and Level of Variety in Brands		Urban			Mixed		Rural			Total		
of Variety in Brands	High- powerty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 12.21 87.79	0 0 20.07 79.93	0 0 17.51 82.49	0 0 26.46 73.54	0 0 17.20 82.80	0 0 18.90 81.10	0 0 36.69 63.31	0 0 43.13 56.87	0 0 40.82 59.18	0 0 21.12 78.88	0 0 22.61 77.39	0 0 22.19 77.81
PROCESSED MEAT Sufficient Minimal No variety Not Available	0 4.87 12.33 82.80	0 10.57 20.03 69.41	0 8.71 17.52 73.77	5.50 16.02 15.88 62.60	6.25 8.66 12.17 72.91	6.11 10.01 12.85 71.02	0 16.08 41.78 42.14	3.16 24.57 35.62 36.65	2.03 21.53 37.83 38.62	1.28 10.03 19.89 68.80	3.03 12.04 19.35 65.57	2.54 11.48 19.50 66.48
FRESH POULTRY Sufficient Minimal No variety Not Available	0 0 2.47 97.53	0 1.18 10.87 87.95	0 0.79 8.13 91.07	0 5.50 5.29 89.21	0 2.49 6.20 91.31	0 3.04 6.04 90.92	0 0 100.00	0 0 18.56 81.44	0 0 11.92 88.08	0 1.28 2.56 96.16	0 1.52 10.22 88.26	0 1.45 8.07 90.48
FRESH SEAFOOD Sufficient Minimal No variety Not Available	0 0 2.38 97.62	0 0 3.47 96.53	0 0 3.12 96.88	0 0 10.58 89.42	0 0 3.71 96.29	0 0 4.98 95.02	0 0 100.00	0 0 100.00	0 0 100.00	0 0 3.74 96.26	0 0 3.01 96.99	0 0 3.22 96.78
PACKAGED MEAT Sufficient Minimal No variety Not Available	0 2.59 36.06 61.35	0 1.19 50.43 48.38	0 1.65 45.75 52.61	0 5.50 47.42 47.08	1.22 2.49 45.53 50.76	1.00 3.04 45.88 50.08	0 0 68.13 31.87	0 0 81.71 18.29	0 0 76.85 23.15	0 2.67 46.04 51.29	0.49 1.53 53.46 44.52	0.36 1.85 51.38 46.42
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 0 73.83 26.17	0 0 64.66 35.34	0 0 67.65 32.35	0 0 79.25 20.75	0 0 58.70 41.30	0 0 62.48 37.52	0 0 74.22 25.78	0 0 82.70 17.30	0 0 79.67 20.33	0 0 75.18 24.82	0 0 65.14 34.86	0 0 67.96 32.04
PACKAGED PRODUCE Sufficient Minimal No variety Not Available	0 2.41 55.34 42.26	0 2.34 77.87 19.79	0 2.36 70.53 27.11	5.50 5.36 58.08 31.06	3.71 4.98 66.02 25.29	4.04 5.05 64.56 26.35	0 0 73.44 26.56	0 6.24 78.75 15.01	0 4.01 76.85 19.14	1.28 2.54 60.12 36.06	1.50 4.03 73.22 21.25	1.44 3.61 69.54 25.41
umber of stores	42	85	127	19	82	101	19	33	52	80	200	280

Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

	Ctore	Tumper
~~~	atore	Types

Food Group and Level of Variety in Brands		Urban		Mixed			Rural			Total		
of Variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 49.21 50.79	0 0 50.74 49.26	0 0 50.39 49.61	0 0 46.88 53.12	0 0 49.43 50.57	0 0 49.00 51.00	0 0 50.43 49.57	0 0 60.86 39.14	0 0 58.48 41.52	0 0 48.81 51.19	0 0 52.17 47.83	0 0 51.48 48.52
PROCESSED MEAT Sufficient Minimal No variety Not Available	6.12 27.72 33.17 33.00	19.27 21.89 34.69 24.15	16.30 23.20 34.34 26.15	13.01 19.61 41.35 26.03	21.66 20.53 36.93 20.88	20.20 20.37 37.68 21.74	9.90 16.41 56.71 16.98	23.92 25.98 38.59 11.51	20.72 23.80 42.73 12.76	8.88 22.99 40.54 27.59	21.02 22.17 36.24 20.57	18.52 22.34 37.13 22.02
FRESH POULTRY Sufficient Minimal No variety Not Available	0 4.50 25.49 70.01	3.82 11.11 18.46 66.61	2.96 9.62 20.05 67.38	0.71 4.82 12.98 81.50	2.34 12.83 12.18 72.66	2.06 11.48 12.31 74.15	0 0.88 12.62 86.50	0.29 7.83 24.23 67.65	0.23 6.24 21.58 71.96	0.20 3.81 19.18 76.81	2.61 11.11 17.26 69.01	2.12 9.61 17.66 70.62
FRESH SEAFOOD Sufficient Minimal No variety Not Available	0 0 7.44 92.56	0 0 20.81 79.19	0 0 17.79 82.21	0 9.57 90.43	0 0 14.81 85.19	0 0 13.93 86.07	0 0 3.55 96.45	0 0 8.91 91.09	0 0 7.68 92.32	0 0 7.21 92.79	0 0 16.38 83.62	0 0 14.49 85.51
PACKAGED MEAT Sufficient Minimal No variety Not Available	0.44 5.28 74.02 20.25	4.68 13.47 70.04 11.81	3.73 11.62 70.93 13.72	2.10 10.25 76.61 11.04	4.23 16.84 66.31 12.62	3.87 15.73 68.04 12.36	0 9.92 83.73 6.34	3.08 20.39 70.16 6.37	2.38 18.00 73.26 6.36	0.82 7.69 76.84 14.66	4.22 16.01 68.70 11.08	3.51 14.29 70.38 11.82
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 0 69.55 30.45	0 0 79.20 20.80	0 0 77.02 22.98	0 0 68.63 31.37	0 0 74.25 25.75	0 0 73.31 26.69	0 0 76.04 23.96	0 0 81.45 18.55	0 0 80.22 19.78	0 0 70.68 29.32	0 0 77.82 22.18	0 0 76.35 23.65
PACKAGED PRODUCE Sufficient Minimel No variety Not Available	1.62 10.52 74.05 13.82	17.07 5.98 70.79 6.16	13.58 7.01 71.52 7.89	11.68 8.26 72.49 7.57	19.16 6.25 68.16 6.43	17.90 6.58 68.89 6.63	9.02 3.58 82.88 4.53	13.58 21.90 59.24 5.28	12.54 17.71 64.64 5.11	6.06 8.39 75.50 10.05	17.17 9.08 67.65 6.10	14.88 8.94 69.27 6.91
lumber of stores	245	819	1064	145	694	839	111	364	475	501	1877	2378

181

### Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Group and Level of Variety in Brands		Urban			Mixed			Rural		Total		
of Variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 77.87 22.13 0	0 93.32 6.68 0	0 92.49 7.51 0	0 93.03 6.97 0	0 90.60 9.40 0	0 90.82 9.18 0	0 100.00 0 0	0 78.77 21.23 0	0 80.79 19.21 0	0 89.57 10.43 0	0 90.01 9.99 0	0 89.98 10.02 0
EGGS Sufficient Minimal No variety Not Available	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0
CEREALS, GRAINS Sufficient Minimal No variety Not Available	87.94 12.06 0	92.11 4.48 3.41 0	91.89 4.89 3.23 0	100.00 0 0	89.84 3.68 6.47 0	90.75 3.36 5.90 0	100.00 0 0	76.79 14.43 8.78 0	78.99 13.06 7.95 0	96.13 3.87 0 0	88.86 5.71 5.44 0	89.40 5.57 5.03 0
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	89.79 10.21 0 0	92.69 3.20 3.43 0.68	92.53 3.57 3.25 0.65	100.00 0 0	92.09 4.32 3.59 0	92.80 3.93 3.27 0	100.00 0 0	80.38 17.85 1.77 0	82.24 16.16 1.60 0	96.72 3.28 0 0	90.55 5.90 3.24 0.31	91.01 5.70 3.00 0.29
DINNER MIXTURES Sufficient Minimal No variety Not Available	44.40 44.40 11.21 0	86.87 6.48 6.65 0	84.60 8.51 6.89 0	78.70 21.30 0	80.50 11.58 7.92 0	80.34 12.45 7.21 0	66.22 33.78 0 0	51.50 30.81 17.69 0	52.90 31.10 16.01 0	65.16 31.24 3.60 0	78.92 12.23 8.85 0	77.90 13.64 8.46 0
DTHER FOODS Sufficient Minimal No variety Not Available	66.52 33.48 0 0	90.77 7.12 2.11 0	89.47 8.53 2.00 0	100.00 0 0 0	90.60 4.33 5.07 0	91.44 3.94 4.62 0	83.11 16.89 0 0	74.83 18.16 7.01 0	75.61 18.04 6.35 0	85.84 14.16 0 0	88.24 7.73 4.02 0	88.06 8.21 3.73 0
Number of stores	9	154	163	14	138	152	6	55	61	29	347	376

## Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Large	Grocery	y Stores
-------	---------	----------

Food Group and Level of Variety in Brands		Urban			Mixed			Rural		Total		
or variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 23.32 60.84 15.83	0 21.12 68.03 10.84	0 21.69 66.19 12.12	0 33.48 66.52 0	0 58.62 41.38 0	0 54.09 45.91 0	0 66.67 33.33 0	0 80.44 19.56 0	0 79.02 20.98 0	0 35.48 56.91 7.60	0 55.82 40.90 3.27	0 52.20 43.76 4.05
EGGS Sufficient Minimal No variety Not Available	0 0 100.00 0	0 0 89.36 10.64	0 0 92.08 7.92	0 0 88.64 11.36	0 0 97.34 2.66	0 0 95.77 4.23	0 0 100.00 0	0 0 100.00 0	0 0 100.00 0	0 0 96.45 3.55	0 0 95.97 4.03	0 0 96.05 3.95
CEREALS, GRAINS Sufficient Minimal No variety Not Available	46.26 23.42 30.33 0	29.55 43.27 24.66 2.51	33.83 38.19 26.11 1.87	55.16 22.27 22.57 0	50.99 38.58 10.43 0	51.74 35.64 12.62 0	100.00 0 0	80.01 18.15 1.84 0	82.07 16.28 1.65 0	60.18 18.20 21.61 0	55.85 32.02 11.37 0.76	56.62 29.56 13.20 0.62
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	22.55 47.12 14.49 15.83	34.78 35.07 24.79 5.36	31.64 38.16 22.15 8.04	44.25 44.40 11.36 0	45.96 43.65 10.39 0	45.65 43.78 10.57 0	100.00 0 0	78.32 19.68 1.99 0	80.56 17.65 1.79 0	45.39 36.50 10.51 7.60	55.22 31.70 11.46 1.62	53.47 32.55 11.29 2.68
DINNER MIXTURES Sufficient Minimal No variety Not Available	8.06 30.33 53.36 8.25	13.52 26.58 59.90 0	12.12 27.54 58.22 2.11	11.21 43.81 44.99 0	20.33 38.26 41.41 0	18.69 39.26 42.05 0	16.67 83.33 0 0	16.21 74.00 9.79 0	16.25 74.97 8.78 0	10.83 45.53 39.68 3.96	16.66 48.69 34.64 0	15.62 48.13 35.54 0.71
DTHER FOODS Sufficient Hinimel No variety Not Available	8.06 69.19 22.74 0	26.78 51.50 21.72 0	21.98 56.04 21.98 0	44.10 44.54 11.36 0	45.60 51.74 2.66 0	45.33 50.44 4.23 0	100.00 0 0 0	68.12 31.88 0 0	71.41 28.59 0 0	38.39 47.14 14.47 0	48.71 43.91 7.38 0	46.87 44.49 8.64 0
Number of stores	13	37	50	9	39	48	6	50	56	28	126	154

## Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Small Grocery Stores

Food Group and Level of Variety in Brands		Urban		Mixed				Rural		Total		
of Variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 0 88.08 11.92	0 3.08 86.11 10.81	0 1.97 86.82 11.21	0 0 76.25 23.75	0 3.01 89.46 7.53	0 2.01 85.06 12.94	0 0 86.06 13.94	0 7.92 87.43 4.65	0 5.12 86.95 7.93	0 0 85.25 14.75	0 4.09 87.13 8.78	0 2.65 86.47 10.88
EGGS Sufficient Minimal No variety Not Available	0 0 87.02 12.98	0 0 82.91 17.09	0 0 84.38 15.62	0 0 61.89 38.11	0 0 81.89 18.11	0 0 75.22 24.78	0 0 89.03 10.97	0 0 92.12 7.88	0 0 91.03 8.97	0 0 82.36 17.64	0 0 84.64 15.36	0 0 83.84 16.16
CEREALS, GRAINS Sufficient Minimal No variety Not Available	5.70 49.89 43.37 1.03	3.78 43.01 51.32 1.89	4.47 45.48 48.47 1.58	3.01 29.81 64.32 2.86	4.50 33.52 58.93 3.05	4.00 32.29 60.72 2.99	0 41.82 55.39 2.79	11.10 53.39 33.84 1.66	7.18 49.30 41.45 2.06	3.94 44.10 50.18 1.78	5.50 43.12 49.28 2.10	4.95 43.47 49.60 1.98
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	0 39.38 56.30 4.32	3.16 24.61 63.78 8.44	2.03 29.92 61.09 6.96	0 23.40 70.89 5.71	2.97 40.99 54.53 1.51	1.98 35.13 59.98 2.91	0 22.45 77.55 0	15.65 42.37 38.86 3.13	10.12 35.33 52.52 2.02	0 32.53 63.79 3.68	5.78 32.00 56.44 5.78	3.74 32.19 59.03 5.04
DINNER MIXTURES Sufficient Minimal No variety Not Available	0 2.06 95.79 2.14	0.62 7.84 89.14 2.40	0.40 5.77 91.53 2.31	0 0 100.00 0	0 6.04 92.45 1.51	0 4.03 94.97 1.00	0 0 97.32 2.68	0 23.85 74.48 1.66	0 15.43 82.55 2.02	0 1.21 96.97 1.82	0.35 10.85 86.75 2.04	0.23 7.45 90.35 1.97
DTHER FOODS Sufficient Minimal No variety Not Available	2.10 59.69 38.20 0	1.22 53.69 44.48 0.61	1.54 55.84 42.23 0.39	0 26.53 73.47 0	3.03 48.80 46.67 1.51	2.02 41.37 55.60 1.00	0 41.78 58.22 0	4.77 64.62 28.95 1.66	3.09 56.55 39.29 1.08	1.23 49.15 49.62 0	2.38 54.93 41.66 1.03	1.97 52.89 44.47 0.67
Number of stores	93	162	255	34	66	100	36	64	100	163	292	455

## Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Concer	 				
SDPC		31	OF	85	
	 	~ ~ ~	~		

Food Group and Level of Variety in Brands	Urban			Mixed			Rural			Total		
or variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 0 34.89 65.11	0 0 40.20 59.80	0 0 38.72 61.28	0 0 37.21 62.79	0 0 33.34 66.66	0 0 33.90 66.10	0 0 100.00	0 5.33 44.59 50.07	0 4.83 40.35 54.83	0 0 33.98 66.02	0 0.58 38.05 61.37	0 0.45 37.18 62.37
EGGS Sufficient Minimal No variety Not Available	0 0 41.24 58.76	0 0 31.96 68.04	0 0 34.53 65.47	0 0 37.45 62.55	0 0 20.65 79.35	0 0 23.06 76.94	0 0 0 100.00	0 0 27.52 72.48	0 0 24.90 75.10	0 0 38.62 61.38	0 0 27.16 72.84	0 0 29.60 70.40
CEREALS, GRAINS Sufficient Minimal No variety Not Available	0 6.59 47.28 46.14	0 2.53 40.26 57.21	0 3.66 42.21 54.14	0 0 35.53 64.47	0 0 42.39 57.61	0 0 41.41 58.59	0 0 49.32 50.68	5.33 0 11.24 83.43	4.83 0 14.86 80.31	0 4.76 44.59 50.65	0.58 1.29 37.94 60.19	0.45 2.03 39.36 58.16
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	0 6.27 41.59 52.14	0 8.12 57.24 34.64	0 7.61 52.90 39.50	0 0 54.14 45.86	0 10.90 51.87 37.23	0 9.34 52.19 38.47	0 0 50.68 49.32	5.33 5.55 50.43 38.69	4.83 5.02 50.45 39.70	0 4.53 44.93 50.54	0.58 8.91 54.45 36.07	0.45 7.97 52.42 39.16
DINNER MIXTURES Sufficient Minimal No variety Not Available	0 0 41.28 58.72	0 0 45.37 54.63	0 0 44.23 55.77	0 0 18.01 81.99	0 0 39.64 60.36	0 0 36.54 63.46	0 0 100.00	5.33 0 11.24 83.43	4.83 0 10.17 85.01	0 0 34.06 65.94	0.58 0 39.49 59.93	0.45 0 38.33 61.21
DTHER FOODS Sufficient Minimal No variety Not Available	0 6.59 56.45 36.97	0 2.47 70.85 26.68	0 3.61 66.85 29.54	0 0 72.87 27.13	0 3.21 67.18 29.61	0 2.75 68.00 29.25	0 0 100.00 0	5.33 0 56.12 38.55	4.83 0 60.30 34.88	0 4.76 62.15 33.10	0.58 2.49 67.85 29.08	0.45 2.97 66.64 29.94
Number of stores	32	82	114	11	64	75	2	18	20	45	164	209

185

# Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Group and Level of Variety in Brands	Urben			Mixed				Rural		Total		
of Variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 2.49 86.63 10.88	0 5.38 90.55 4.06	0 4.95 89.97 5.08	0 0 82.84 17.16	0 3.60 94.63 1.77	0 3.01 92.69 4.30	0 4.65 91.10 4.25	0 3.19 96.81 0	0 3.56 95.36 1.08	0 1.92 86.00 12.08	0 4.38 93.00 2.62	0 3.96 91.81 4.22
EGGS Sufficient Minimal No variety Not Available	0 0 82.42 17.58	0 0 88.30 11.70	0 0 87.43 12.57	0 0 80.68 19.32	0 0 89.85 10.15	0 0 88.34 11.66	0 0 74.11 25.89	0 0 89.51 10.49	0 0 85.60 14.40	0 0 80.07 19.93	0 0 89.09 10.91	0 0 87.56 12.44
CEREALS, GRAINS Sufficient Ninimal No variety Not Available	0 39.39 60.61 0	1.27 46.45 50.34 1.95	1.08 45.39 51.87 1.66	2.22 4.53 88.87 4.38	1.36 29.37 66.17 3.10	1.50 25.29 69.90 3.31	0 4.48 86.91 8.61	3.19 26.21 69.08 1.52	2.38 20.69 73.60 3.32	0.89 18.44 77.20 3.47	1.53 36.92 59.16 2.38	1.43 33.79 62.22 2.56
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	0 39.30 60.70 0	4.62 47.88 45.45 2.05	3.93 46.60 47.72 1.74	0 43.51 54.38 2.10	1.36 52.49 46.15 0	1.13 51.01 47.51 0.35	0 47.76 52.24 0	4.61 48.70 46.68 0	3.44 48.46 48.09 0	0 42.68 56.48 0.85	3.26 49.90 45.89 0.95	2.71 48.67 47.68 0.93
DINNER MIXTURES Sufficient Minimal No variety Not Available	0 13.92 83.99 2.09	0 10.77 87.27 1.96	0 11.24 86.78 1.98	0 2.22 95.67 2.10	0 4.50 92.84 2.67	0 4.12 93.30 2.57	0 0 100.00 0	0 12.39 86.06 1.54	0 9.25 89.60 1.15	0 6.45 91.87 1.68	0 8.35 89.44 2.21	0 8.03 89.85 2.12
DTHER FOODS Sufficient Minimal No variety Not Available	0 55.66 44.34 0	0.41 62.99 36.60 0	0.35 61.89 37.76 0	0 35.03 64.97 0	0 51.29 48.71 0	0 48.62 51.38 0	0 17.92 82.08 0	3.19 44.13 52.68 0	2.38 37.47 60.15 0	0 39.86 60.14 0	0.57 55.87 43.56 0	0.47 53.16 46.37 0
Number of stores	44	244	288	46	227	273	23	66	89	113	537	650

186

# Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Level		Urban			Mixed			Rural		Total		
or variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 0 91.24 8.76	0 10.79 89.21 0	0 8.97 89.55 1.48	0 0 100.00 0	0 3.93 96.07 0	0 3.42 96.58 0	0 5.67 94.33 0	0 1.36 96.14 2.51	0 2.19 95.79 2.02	0 2.49 95.06 2.46	0 4.86 94.23 0.90	0 4.47 94.37 1.16
EGGS Sufficient Minimal No variety Not Available	0 0 75.28 24.72	0 0 84.59 15.41	0 0 83.01 16.99	0 0 92.02 7.98	0 0 94.94 5.06	0 0 94.56 5.44	0 0 94.83 5.17	0 0 96.14 3.86	0 0 95.89 4.11	0 0 88.56 11.44	0 0 92.57 7.43	0 0 91.91 8.09
CEREALS, GRAINS Sufficient Minimel No variety Not Available	0 8.76 82.48 8.76	0 52.14 47.86 0	0 44.81 53.71 1.48	0 16.74 83.26 0	0 44.53 55.47 0	0 40.92 59.08 0	0 37.46 57.37 5.17	2.56 37.58 54.73 5.13	2.06 37.56 55.24 5.14	0 23.60 71.67 4.73	0.92 44.09 53.14 1.85	0.77 40.73 56.18 2.32
BAKERY PRODUCTS Sufficient Kinimal No variety Not Available	9.09 25.50 65.41 0	11.13 59.31 29.56 0	10.79 53.60 35.62 0	0 33.92 66.08 0	7.88 56.43 35.69 0	6.85 53.50 39.65 0	0 47.66 52.34 0	3.88 61.38 34.74 0	3.13 58.73 38.14 0	2.55 37.59 59.86 0	7.32 58.99 33.69 0	6.53 55.48 37.98 0
DINNER MIXTURES Sufficient Minimel No variety Not Available	0 0 91.24 8.76	0 28.44 71.56 0	0 23.63 74.89 1.48	0 0 100.00 0	0 13.02 85.79 1.19	0 11.33 87.64 1.04	0 0 100.00 0	0 9.28 88.28 2.44	0 7.49 90.54 1.97	0 0 97.54 2.46	0 15.85 82.83 1.32	0 13.25 85.25 1.51
DTHER FOODS Sufficient finimal lo variety lot Available	0 33.81 66.19 0	1.78 61.51 36.71 0	1.48 56.84 41.69 0	0 58.65 41.35 0	0 65.42 34.58 0	0 64.54 35.46 0	0 48.02 51.98 0	0 67.16 32.84 0	0 63.46 36.54 0	0 47.01 52.99 0	0.48 64.99 34.53 0	0.40 62.04 37.56 0
lumber of stores	12	55	67	12	78	90	19	78	97	43	211	254

Grocery/Gas Outlets

## Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Other Stores

Food Group and Level		Urban			Mixed		1	Rural			Total	
of Variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Hinimal No variety Not Available	0 4.96 31.31 63.73	0 2.43 59.25 38.32	0 3.25 50.15 46.60	0 5.50 47.42 47.08	0 5.00 60.25 34.75	0 5.09 57.90 37.01	0 0 63.39 36.61	0 6.28 81.79 11.93	0 4.03 75.20 20.77	0 3.95 42.39 53.65	0 4.08 63.27 32.65	0 4.05 57.40 38.55
EGGS Sufficient Minimal No variety Not Available	0 0 45.65 54.35	0 0 45.49 54.51	0 0 45.54 54.46	0 0 37.40 62.60	0 0 50.40 49.60	0 0 48.01 51.99	0 0 63.10 36.90	0 0 79.42 20.58	0 0 73.58 26.42	0 0 47.72 52.28	0 0 52.91 47.09	0 0 51.45 48.55
CEREALS, GRAINS Sufficient Minimal No variety Not Available	2.41 12.24 31.28 54.08	0 14.26 46.19 39.56	0.78 13.60 41.33 44.29	5.50 5.36 47.63 41.50	7.39 19.87 26.84 45.90	7.05 17.20 30.66 45.10	0 21.03 47.45 31.52	6.36 30.41 42.14 21.09	4.08 27.05 44.04 24.82	2.58 12.65 38.78 45.99	4.01 19.11 37.72 39.16	3.61 17.30 38.02 41.08
BAKERY PRODUCTS Sufficient Ninimal No variety Not Available	0 2.41 47.97 49.62	1.22 22.53 49.57 26.68	0.82 15.97 49.05 34.16	5.50 5.36 47.63 41.50	6.25 13.43 47.69 32.63	6.11 11.95 47.68 34.26	0 31.66 31.52 36.83	3.16 33.65 51.03 12.16	2.03 32.94 44.04 20.99	1.28 9.78 44.13 44.81	3.56 20.63 49.04 26.76	2.92 17.58 47.66 31.83
DINNER MIXTURES Sufficient Minimal No variety Not Available	0 0 41.26 58.74	0 3.58 61.33 35.10	0 2.41 54.79 42.80	5.50 0 47.42 47.08	3.71 3.78 50.38 42.13	4.04 3.08 49.84 43.04	0 0 63.03 36.97	0 12.60 66.31 21.09	0 8.09 65.14 26.77	1.28 0 47.68 51.04	1.50 5.10 57.70 35.69	1.44 3.67 54.89 40.01
DTHER FOODS Sufficient Minimal No variety Not Available	0 14.59 54.80 30.62	0 22.25 52.23 25.52	0 19.75 53.07 27.18	5.50 10.93 47.01 36.56	6.20 13.52 54.72 25.55	6.07 13.05 53.31 27.57	0 21.03 73.65 5.31	3.12 52.49 32.23 12.16	2.00 41.23 47.06 9.71	1.28 15.21 57.30 26.21	3.01 23.57 50.03 23.39	2.52 21.22 52.07 24.18
Number of stores	42	85	127	19	82	101	19	33	52	80	200	280

## Frequency Distribution of Retailers by Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Level		Urban			Mixed			Rural			Total	
or variety in brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 5.39 67.32 27.29	0 21.71 64.47 13.81	0 18.03 65.12 16.86	0 11.72 66.29 21.99	0 23.85 64.59 11.56	0 21.81 64.88 13.32	0 10.92 75.63 13.45	0 26.27 68.78 4.95	0 22.77 70.34 6.89	0 8.37 68.81 22.81	0 23.35 65.33 11.32	0 20.26 66.05 13.69
EGGS Sufficient Minimal No variety Not Available	0 0 73.67 26.33	0 0 79.14 20.86	0 0 77.91 22.09	0 0 70.58 29.42	0 0 81.05 18.95	0 0 79.29 20.71	0 0 82.09 17.91	0 0 90.40 9.60	0 0 88.50 11.50	0 0 74.60 25.40	0 0 81.96 18.04	0 0 80.44 19.56
CEREALS, GRAINS Sufficient Minimal No variety Not Available	8.28 31.11 44.42 16.18	19.81 30.36 38.92 10.90	17.21 30.53 40.16 12.10	15.15 11.89 60.53 12.44	22.52 23.04 42.39 12.06	21.27 21.16 45.44 12.12	10.80 24.51 54.83 9.86	26.74 29.55 35.96 7.76	23.10 28.40 40.27 8.24	10.77 24.24 51.22 13.76	22.10 27.54 39.62 10.73	19.76 26.86 42.02 11.36
BAKERY PRODUCTS Sufficient finimal lo variety lot Available	4.91 27.35 49.83 17.91	21.90 28.42 40.78 8.90	18.07 28.18 42.82 10.93	13.06 25.56 50.42 10.96	23.28 33.30 35.99 7.44	21.56 31.99 38.42 8.04	10.80 30.76 51.27 7.17	28.09 38.00 30.31 3.60	24.14 36.35 35.10 4.41	8.49 27.57 50.31 13.63	23.57 32.00 37.06 7.37	20.46 31.09 39.79 8.66
DINNER MIXTURES Sufficient Minimal lo variety lot Available	2.05 6.52 71.54 19.89	17.09 9.46 63.27 10.17	13.69 8.80 65.14 12.37	8.97 5.47 72.45 13.11	17.60 8.43 62.26 11.71	16.15 7.93 63.98 11.94	4.46 6.34 80.23 8.97	10.33 24.56 57.92 7.19	8.99 20.40 63.01 7.60	4.53 6.18 73.66 15.62	16.00 11.94 61.89 10.17	13.63 10.75 64.32 11.29
DTHER FOODS Sufficient linimal lo variety lot Available	3.66 42.56 43.64 10.14	18.79 39.71 36.05 5.44	15.37 40.36 37.77 6.50	13.05 26.38 53.69 6.88	21.63 34.41 38.05 5.90	20.19 33.06 40.69 6.07	9.90 29.99 59.20 0.91	22.83 45.49 28.35 3.33	19.88 41.95 35.39 2.78	7.66 35.28 49.83 7.23	20.59 38.87 35.33 5.21	17.92 38.13 38.32 5.63
umber of stores	245	819	1064	145	694	839	111	364	475	501	1877	2378

189

All Store Types

## Exhibit C-3b Average Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Group and Level of Variety in Brands		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
FRESH MEAT	1.16	1.18	1.18	1.27	1.16	1.17	1.23	1.05	1.07	1.23	1.15	1.16
PROCESSED MEAT	2.81	2.85	2.84	2.89	2.84	2.85	2.89	2.60	2.63	2.87	2.81	2.81
FRESH POULTRY	1.81	1.92	1.91	1.40	1.68	1.66	1.31	1.21	1.22	1.52	1.72	1.70
FRESH SEAFOOD	0.33	0.83	05.0	0.36	0.67	0.64	0.50	0.33	0.35	0.38	0.69	0.67
PACKAGED MEAT	1.91	2.12	2.11	2.27	2.14	2.16	1.86	1.86	1.86	2.07	2.09	2.09
FRESH PRODUCE	0.92	0.95	0.95	0.96	0.91	0.92	0.96	0.87	0.88	0.95	0.92	0.93
PACKAGED PRODUCE	2.37	2.66	2.64	2.81	2.63	2.65	2.81	2.38	2.42	2.67	2.60	2.61
DAIRY PRODUCTS	1.78	2.11	2.09	2.17	2.13	2.13	2.02	1.87	1.88	2.01	2.08	2.07
ECOS	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
CEREALS, GRAINS	2.80	2.79	2.79	2.95	2.74	2.75	2.98	2.56	2.60	2.91	2.73	2.75
BAKERY PRODUCTS	2.80	2.84	2.84	2.99	2.86	2.87	3.00	2.72	2.75	2.93	2.83	2.84
DINNER MIXTURES	2.21	2.62	2.59	2.63	2.53	2.54	2.60	2.22	2.25	2.49	2.52	2.52
OTHER FOODS	2.56	2.71	2.71	2.78	2.68	2.69	2.67	2.55	2.56	2.69	2.67	2.67
Number of stores	9	154	163	14	138	152	6	55	61	29	347	376

### Large Grocery Stores

Food Group and Level		Urban			Mixed			Rural			Total	
of Variety in Brs.433	High- poverty	Other	Total									
FRESH MEAT	0.63	0.65	0.65	0.92	0.90	0.90	1.20	1.01	1.03	0.84	0.87	0.86
PROCESSED NEAT	1.86	1.64	1.70	2.28	2.18	2.20	2.73	2.52	2.54	2.17	2.15	2.16
FRESH POULTRY	0.54	0.61	0.60	0.61	0.88	0.83	0.95	0.93	0.94	0.65	0.82	0.79
FRESH SEAFOOD	0.32	0.08	0.14	0.12	0.05	0.06	0.00	0.20	0.18	0.19	0.12	0.13
PACKAGED NEAT	1.16	1.07	1.10	1.29	1.37	1.35	1.87	1.70	1.72	1.35	1.41	1.40
FRESH PRODUCE	0.59	0.66	0.64	0.78	0.81	0.81	0.99	0.87	0.88	0.73	0.79	0.78
PACKAGED PRODUCE	1.46	1.42	1.43	1.88	1.92	1.91	2.58	2.23	2.26	1.83	1.89	1.88
DATRY PRODUCTS	0.89	1.00	0.97	1.26	1.54	1.49	1.59	1.72	1.71	1.15	1.45	1.40
ECGE	0.99	0.89	0.91	0.88	0.96	0.95	0.99	0.99	0.99	0.96	0.95	0.95
CEREALS CRAINS	1.98	2.01	2.00	2.29	2.37	2.36	2.86	2.65	2.67	2.26	2.37	2.35
PAKERY PRODUCTS	1.78	1.90	1.87	2.18	2.38	2.35	2.81	2.69	2.70	2.12	2.36	2.31
INNER MIXTURES	1.30	1.18	1.21	1.54	1.71	1.68	2.21	2.07	2.08	1.56	1.69	1.66
OTHER FOODS	1.97	2.01	2.00	2.26	2.35	2.34	2.71	2.53	2.55	2.21	2.32	2.30
Number of stores	13	37	50	9	39	48	6	50	56	28	126	154

4.1

# Average Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Level		Urban			Mixed			Rural			Total	
or variety in brands	High- poverty	Other	Total									
FRESH MEAT	0.25	0.21	0.22	0.10	0.20	0.17	0.12	0.31	0.24	0.19	0.23	0.21
PROCESSED MEAT	1.27	0.97	1.08	0.90	1.06	1.01	0.87	1.34	1.17	1.11	1.07	1.08
FRESH POULTRY	0.27	0.13	0.18	0.04	0.08	0.36	0.03	0.15	0.11	0.17	0.13	0.14
FRESH SEAFOOD	0.03	0.02	0.03	0.03	0.00	J.01	0.00	0.03	0.02	0.02	0.02	0.02
PACKAGED MEAT	0.62	0.61	0.61	0.53	0.58	0.57	0.61	0.79	0.73	0.60	0.64	0.63
FRESH PRODUCE	0.40	0.38	0.39	0.30	0.34	0.33	0.29	0.48	0.41	0.36	0.39	0.38
PACKAGED PRODUCE	0.99	0.89	0.93	0.88	1.02	0.97	0.87	1.24	1.11	0.94	0.99	0.97
DAIRY PRODUCTS	0.50	0.59	0.56	0.45	0.70	0.62	0.45	0.83	0.70	0.48	0.67	0.60
EGGS	0.85	0.82	0.83	0.61	0.80	0.74	0.88	0.91	0.90	0.81	0.84	0.83
CEREALS, GRAINS	1.47	1.35	1.39	1.05	1.27	1.20	1.10	1.71	1.50	1.31	1.41	1.37
BAKERY PRODUCTS	1.31	1.19	1.23	1.07	1.42	1.30	1.17	1.66	1.48	1.23	1.34	1.30
DINNER MIXTURES	0.67	0.64	0.65	0.45	0.67	0.60	0.59	1.04	0.88	0.61	0.73	0.69
OTHER FOODS	1.58	1.51	1.54	1.25	1.53	1.44	1.33	1.76	1.60	1.46	1.57	1.53
Number of stores	93	162	255	34	66	100	36	64	100	163	292	455

## Small Grocery Stores

Speci	ini	tu	Stores	
SPEC .			310103	

Food Group and Level		Urban		1	Mixed			Rural			Total	
of Variety in Brands	High- poverty	Other	Total									
FRESH MEAT	0.37	0.28	0.31	0.23	0.33	0.32	0.00	0.42	0.38	0.32	0.32	0.32
PROCESSED MEAT	0.47	0.37	0.40	0.56	0.37	0.40	0.00	0.67	0.60	0.47	0.41	0.42
FRESH POULTRY	0.38	0.28	0.31	0.02	0.16	0.14	0.00	0.22	0.20	0.28	0.23	0.24
FRESH SEAFOOD	0.22	0.35	0.31	0.35	0.09	0.13	0.49	0.11	0.15	0.26	0.22	0.23
PACKAGED MEAT	0.23	0.28	0.27	0.13	0.14	0.14	0.05	0.23	0.21	0.20	0.22	0.22
FRESH PRODUCE	0.10	0.11	0.11	0.10	0.09	0.09	0.00	0.15	0.14	0.10	0.11	0.11
PACKAGED PRODUCE	0.21	0.18	0.19	0.14	0.19	0.18	0.11	0.23	0.22	0.19	0.19	0.19
DAIRY PRODUCTS	0.13	0.17	0.16	0.10	0.16	0.15	0.00	0.36	0.33	0.11	0.19	0.17
EGGS	0.41	0.32	0.34	0.37	0.21	0.23	0.00	0.27	0.25	0.38	0.27	0.29
CEREALS, GRAINS	0.31	0.23	0.25	0.18	0.14	0.15	0.01	0.24	0.21	0.27	0.20	0.21
AKERY PRODUCTS	0.44	0.56	0.53	0.39	0.56	0.54	0.35	0.57	0.55	0.42	0.56	0.53
INNER MIXTURES	0.17	0.11	0.12	0.05	0.09	0.08	0.00	0.19	0.17	0.13	0.11	0.11
THER FOODS	0.42	0.38	0.39	0.30	0.33	0.32	0.12	0.28	0.27	0.38	0.35	0.36
Number of stores	32	82	114	11	64	75	2	18	20	45	164	209

191

# Average Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

# Convenience Stores

Food Group and Level		Urban			Mixed			Rural			Total	
of variety in Brands	High- poverty	Other	Total									
FRESH MEAT	0.07	0.09	0.09	0.07	0.04	0.04	0.01	0.11	0.08	0.06	0.07	0.07
PROCESSED MEAT	1.19	1.20	1.20	0.94	1.13	1.10	0.89	1.14	1.08	1.03	1.17	1.14
FRESH POULTRY	0.05	0.03	0.03	0.01	0.01	0.01	0.00	0.04	0.03	0.02	0.02	0.02
FRESH SEAFOOD	0.00	0.02	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
PACKAGED MEAT	0.64	0.57	0.58	0.51	0.56	0.55	0.51	0.59	0.57	0.56	0.57	0.57
FIESH PRODUCE	0.29	0.28	0.28	0.18	0.18	0.18	0.16	0.25	0.23	0.22	0.23	0.23
PACIFACIED PRODUCE	0.99	0.93	0.94	0.84	0.93	0.91	0.76	1.06	0.98	0.89	0.94	0.93
DALRY PRODUCTS	0.54	0.81	0.77	0.43	0.74	0.69	0.58	0.77	0.72	0.51	0.78	0.73
Fags	0.82	0.88	0.87	0.80	0.89	0.88	0.73	0.89	0.85	0.79	0.88	0.87
FREALS, GRAINS	1.33	1.42	1.41	0.90	1.20	1.15	0.70	1.23	1.09	1.03	1.31	1.26
AKERY PRODUCTS	1.38	1.56	1.53	1.37	1.56	1.53	1.31	1.56	1.50	1.36	1.56	1.53
INNER MIXTURES	0.84	0.84	0.84	0.52	0.68	0.65	0.46	0.82	0.73	0.63	0.77	0.75
THER FOODS	1.57	1.62	1.61	1.33	1.48	1.46	1.15	1.52	1.42	1.39	1.55	1.52
Number of stores	44	244	288	46	227	273	23	66	89	113	537	650

### Grocery/Gas Outlets

Food Group and Level		Urben			Nixed			Rural			Total	
of Variety in Brands	High- poverty	Other	Total									
FRESH MEAT	0.05	0.02	0.02	0.06	0.05	0.05	0.14	0.09	0.10	0.09	0.06	0.06
PROCESSED MEAT	0.99	1.50	1.61	1.02	1.24	1.21	1.28	1.20	1.21	1.13	1.30	1.27
FRESH POLILTRY	0.00	0.00	0.00	0.05	0.00	0.01	0.01	0.02	0.02	0.02	0.01	0.01
FRESH SEAFOOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PACKAGED NEAT	0.49	0.57	0.56	0.47	0.63	0.61	0.63	0.61	0.62	0.54	0.61	0.60
FRESH PRODUCE	0.07	0.30	0.26	0.16	0.27	0.25	0.25	0.31	0.29	0.17	0.29	0.27
PACKAGED PRODUCE	0.69	0.97	0.92	0.93	1.02	1.01	0.97	1.01	1.01	0.88	1.00	0.98
DALEY PRODUCTS	0.41	0.93	0.84	0.48	0.84	0.79	0.69	0.77	0.75	0.55	0.84	0.79
FCGS	0.75	0.84	0.82	0.91	0.94	0.94	0.94	0.95	0.95	0.88	0.92	0.91
CEDEALS COATNS	0.94	1.49	1.40	1.16	1.34	1.32	1.27	1.31	1.31	1.14	1.37	1.34
DAVERY DRONICTS	1.30	1.84	1.76	1.36	1.70	1.65	1.45	1.67	1.63	1.41	1.73	1.67
STANED MITTIDES	0.44	1.11	1.00	0.46	0.88	0.83	0.64	0.85	0.81	0.53	0.93	0.87
ATHER FRANCES	1 26	1.60	1.62	1.43	1.66	1.61	1.57	1.59	1.59	1.44	1.64	1.60
Number of stores	12	55	67	12	78	90	19	78	97	43	211	254

192

# Average Level of Variety in Brands by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Level of Variety in Brands		Urban			Mixed			Rural			Total	
or variety in Brands	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other.	Total	High- poverty	Other	Total
FRESH MEAT	0.05	0.09	0.08	0.14	0.13	0.13	0.05	0.23	0.17	0.07	0.13	0.11
PROCESSED MEAT	0.24	0.39	0.34	0.57	0.45	0.47	0.62	0.85	0.77	0.40	0.49	0.47
FRESH POULTRY	0.02	0.08	0.06	0.14	0.10	0.11	0.00	0.10	0.06	0.04	0.09	0.08
FRESH SEAFOOD	0.02	0.03	0.03	0.11	0.04	0.05	0.00	0.00	0.00	0.04	0.03	0.03
PACKAGED MEAT	0.20	0.26	0.24	0.36	0.33	0.34	0.45	0.53	0.50	0.29	0.33	0.32
FRESH PRODUCE	0.45	0.27	0.33	0.44	0.32	0.34	0.40	0.47	0.44	0.44	0.32	0.35
PACKAGED PRODUCE	0.28	0.40	0.36	0.50	0.51	0.51	0.54	0.90	0.77	0.39	0.52	0.49
DAIRY PRODUCTS	0.22	0.34	0.30	0.28	0.43	0.40	0.37	0.79	0.64	0.27	0.45	0.40
EGGS	0.45	0.45	0.45	0.37	0.49	0.47	0.63	0.79	0.73	0.47	0.52	0.51
CEREALS, GRAINS	0.43	0.60	0.55	0.51	0.71	0.68	0.79	1.17	1.03	0.53	0.74	0.68
BAKERY PRODUCTS	0.37	0.86	0.70	0.69	0.80	0.78	0.87	1.26	1.12	0.56	0.90	0.80
DINNER MIXTURES	0.15	0.28	0.24	0.36	0.38	0.38	0.39	0.72	0.60	0.25	0.39	0.35
OTHER FOODS	0.55	0.77	0.70	0.70	0.81	0.79	0.91	1.36	1.19	0.67	0.88	0.82
Number of stores	42	85	127	19	82	101	19	33	52	80	200	280

# Other Stores

All Store Types

Food Group and Level		Urben			Mixed			Rural			Total	
of Variety in Brands	High- poverty	Other	Total									
FRESH MEAT	0.24	0.36	0.33	0.26	0.36	0.35	0.21	0.44	0.38	0.24	0.38	0.35
PROCESSED MEAT	1.05	1.34	1.27	1.13	1.39	1.34	1.09	1.55	1.45	1.08	1.40	1.33
FRESH POULTRY	0.26	0.46	0.41	0.21	0.42	0.39	0.13	0.37	0.32	0.22	0.43	0.39
FRESH SEAFOOD	0.07	0.21	0.18	0.10	0.15	0.14	0.04	0.09	0.08	0.07	0.16	0.14
PACKAGED MEAT	0.57	0.83	0.77	0.68	0.87	0.84	0.69	0.95	0.89	0.63	0.87	0.82
FRESH PRODUCE	0.36	0.43	0.41	0.35	0.39	0.39	0.34	0.50	0.46	0.36	0.43	0.41
PACKAGED PRODUCE	0.83	1.14	1.07	1.01	1.22	1.19	0.99	1.39	1.30	0.92	1.22	1.16
DAIRY PRODUCTS	0.47	0.91	0.81	0.61	0.98	0.92	0.64	1.06	0.97	0.55	0.97	0.88
EGGS	0.73	0.78	0.77	0.70	0.80	0.78	0.81	0.90	0.88	0.74	0.81	0.80
CEREALS, GRAINS	1.17	1.49	1.42	1.13	1.44	1.39	1.17	1.68	1.56	1.16	1.51	1.44
BAKERY PRODUCTS	1.13	1.59	1.48	1.34	1.68	1.63	1.37	1.86	1.75	1.24	1.67	1.58
INNER MIXTURES	0.62	1.03	0.94	0.71	1.04	0.98	0.72	1.21	1.10	0.67	1.07	0.99
THER FOODS	1.29	1.61	1.54	1.36	1.61	1.56	1.39	1.79	1.70	1.33	1.64	1.58
lumber of stores	245	819	1064	145	694	839	111	364	475	501	1877	2378

193

## Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Group and Amount of Variety in		Urben			Mixed			Rural			Total	
Package Types	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimel No variety Not Available	0 12.20 87.80 0	0 47.00 51.60 1.40	0 45.14 53.53 1.33	0 71.54 28.46 0	0 50.01 47.05 2.94	0 51.93 45.40 2.68	0 33.33 66.67 0	0 40.38 56.15 3.47	0 39.71 57.15 3.14	0 44.76 55.24 0	0 47.16 50.52 2.32	0 46.98 50.87 2.15
PROCESSED MEAT Sufficient Minimal No variety Not Available	34.33 65.67 0 0	69.52 27.09 2.70 0.68	67.64 29.16 2.56 0.65	93.03 6.97 0 0	74.82 20.98 4.20 0	76.44 19.74 3.82 0	100.00 0 0	60.76 30.39 7.08 1.77	64.48 27.51 6.41 1.60	75.59 24.41 0 0	70.24 25.21 3.96 0.58	70.64 25.15 3.67 0.54
FRESH POULTRY Sufficient Minimal No variety Not Available	0 76.74 23.26 0	21.95 61.47 12.68 3.91	20.77 62.28 13.24 3.70	21.78 71.06 7.16 0	19.04 64.22 8.07 8.67	19.29 64.83 7.99 7.90	0 49.77 50.23 0	11.26 45.41 27.53 15.80	10.19 45.82 29.69 14.30	10.38 68.58 21.04 0	19.16 60.06 13.17 7.61	18.51 60.69 13.75 7.04
FRESH SEAFOOD Sufficient Hinimal No variety Not Available	20.99 0 12.06 66.95	24.14 15.49 43.47 16.89	23.97 14.66 41.79 19.57	0 14.23 21.49 64.28	13.82 12.39 40.44 33.35	12.59 12.56 38.75 36.10	0 0 49.77 50.23	7.51 3.61 21.91 66.97	6.80 3.27 24.56 65.38	6.74 6.79 24.18 62.30	17.54 12.45 38.96 31.06	16.74 12.03 37.86 33.37
PACKAGED MEAT Sufficient Hinimal No variety Not Available	12.20 64.54 23.26 0	15.39 73.30 11.31 0	15.22 72.83 11.95 0	14.90 85.10 0	24.05 65.06 10.89 0	23.24 66.84 9.92 0	0 66.67 33.33 0	14.90 60.33 24.77 0	13.49 60.93 25.58 0	11.02 74.77 14.21 0	18.70 68.08 13.22 0	18.13 68.57 13.30 0
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 65.67 34.33 0	0 86.72 12.70 0.58	0 85.60 13.86 0.55	0 93.12 6.88 0	2.22 87.01 8.64 2.14	2.02 87.55 8.48 1.95	0 100.00 0 0	0 75.23 19.46 5.31	0 77.58 17.61 4.81	0 85.70 14.30 0	0.87 85.06 12.15 1.92	0.80 85.11 12.31 1.78
PACKAGED PRODUCE Sufficient Minimal No variety Not Available	56.31 32.48 11.21 0	81.66 13.58 4.75 0	80.31 14.59 5.10 0	93.03 6.97 0 0	85.44 6.59 7.96 0	86.12 6.63 7.26 0	83.56 16.44 0 0	60.17 29.28 10.55 0	62.39 28.06 9.55 0	79.33 17.08 3.60 0	79.82 13.27 6.90 0	79.78 13.56 6.66 0
Number of stores	9	154	163	14	138	152	6	55	61	29	347	376

194

. .

# Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Amount	1	Urben		T	Hized		1	Rural		1	Total	
of Variety in		T	-		I			Kurat			Totat	
Package Types	Nigh- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 8.06 84.07 7.87	0 2.61 72.89 24.50	0 4.01 75.76 20.24	0 10.77 77.88 11.36	0 22.90 69.34 7.76	0 20.71 70.88 8.41	0 50.00 50.00 0	0 16.13 79.88 3.99	0 19.62 76.80 3.58	0 17.60 75.07 7.33	0 14.13 74.53 11.34	0 14.75 74.63 10.63
PROCESSED MEAT Sufficient Minimal No variety Not Available	8.06 68.43 7.68 15.83	18.55 37.82 27.44 16.20	15.86 45.66 22.38 16.11	32.74 44.84 22.42 0	18.03 68.89 13.09 C	20.68 64.55 14.77 0	65.78 34.22 0 0	31.90 60.07 8.03 0	35.40 57.40 7.20 0	27.74 53.96 10.69 7.60	23.60 56.06 15.45 4.89	24.34 55.69 14.60 5.38
FRESH POULTRY Sufficient Ninimal No variety Not Available	8.06 15.74 38.00 38.20	0 13.49 48.43 38.08	2.07 14.06 45.76 38.11	0 21.53 44.69 33.78	0 48.39 25.53 26.08	0 43.55 28.99 27.47	0 50.00 50.00 0	1.97 32.03 50.28 15.72	1.77 33.88 50.25 14.10	3.87 24.65 42.58 28.89	0.77 31.46 42.11 25.66	1.32 30.25 42.20 26.24
FRESH SEAFOOD Sufficient Hinimel No variety Not Available	0 8.25 23.61 68.14	0 0 8.36 91.64	0 2.11 12.27 85.62	0 0 11.50 88.50	0 0 4.90 95.10	0 0 6.10 93.90	0 0 100.00	4.06 1.84 14.24 79.86	3.65 1.65 12.77 81.93	0 3.96 14.93 81.11	1.59 0.72 9.59 88.10	1.30 1.30 10.54 86.85
PACKAGED MEAT Sufficient Minimal No variety Not Available	0 22.46 77.54 0	2.61 18.78 76.10 2.51	1.94 19.72 76.47 1.87	0 32.74 67.26 0	5.13 30.59 64.27 0	4.21 30.98 64.81 0	0 83.33 16.67 0	2.02 42.15 55.83 0	1.81 46.40 51.79 0	0 38.29 61.71 0	3.15 31.54 64.55 0.76	2.59 32.74 64.04 0.62
RESH PRODUCE Sufficient tinimel to variety tot Available	0 14.97 70.54 14.49	0 18.94 75.74 5.32	0 17.92 74.40 7.67	0 21.53 67.11 11.36	0 38.26 61.74 0	0 35.24 62.71 2.05	0 82.44 17.56 0	0 46.17 53.83 0	0 49.91 50.09 0	0 31.01 58.48 10.51	0 35.51 62.88 1.61	0 34.71 62.10 3.19
PACKAGED PRODUCE Sufficient linimal lo variety lot Available	0 53.93 46.07 0	2.61 45.55 51.83 0	1.94 47.70 50.36 0	10.77 66.81 22.42 0	20.30 51.02 28.68 0	18.58 53.87 27.55 0	33.78 66.22 0 0	26.12 68.00 5.88 0	26.91 67.81 5.27 0	10.37 60.51 29.12 0	17.23 56.00 26.77 0	16.01 56.80 27.19 0
umber of stores	13	37	50	0	39	48	6	50	56	28	126	154

195

Large Grocery Stores

## Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Small Grocery Stores

Food Group and Amount of Variety in		Urben			Hixed			Rural			Total	
Package Types	High- poverty	Other	Total	Nigh- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 59.79 40.21	0 1.83 45.17 53.01	0 1.17 50.42 48.41	0 0 32.24 67.76	0 0 40.78 59.22	0 0 37.93 62.07	0 0 55.54 44.46	0 3.19 47.10 49.72	0 2.06 50.08 47.86	0 0 53.30 46.70	0 1.71 44.61 53.68	0 1.11 47.67 51.22
PROCESSED MEAT Sufficient Minimal No variety Not Available	0 41.80 42.03 16.17	1.22 24.31 52.26 22.21	0.78 30.59 48.59 20.04	0 26.72 49.80 23.47	3.01 23.84 51.91 21.24	2.01 24.80 51.21 21.98	2.79 30.56 50.19 16.47	0 54.59 29.64 15.77	0.98 46.10 36.90 16.02	0.59 36.35 45.35 17.71	1.36 30.64 47.38 20.63	1.09 32.65 46.66 19.60
FRESH POULTRY Sufficient Minimal No variety Not Available	0 3.07 37.84 59.10	0 1.83 24.34 73.84	0 2.27 29.18 68.54	0 0 5.71 94.29	0 1.47 10.72 87.82	0 0.98 9.05 89.97	0 0 5.50 94.50	0 0 20.58 79.42	0 0 15.26 84.74	0 1.79 24.43 73.78	0 1.36 20.54 78.11	0 1.51 21.91 76.58
FRESH SEAFOOD Sufficient Minimal No variety Not Available	0 0 3.12 96.88	0 0 2.46 97.54	0 0 2.70 97.30	0 0 2.86 97.14	0 0 100.00	0 0.95 99.05	0 0 100.00	0 0 3.05 96.95	0 0 1.97 98.03	0 0 2.40 97.60	0 0 2.04 97.96	0 0 2.17 97.83
PACKAGED NEAT Sufficient Ninimal No variety Not Available	0 0.98 93.74 5.28	0 0.60 95.00 4.40	0 0.74 94.55 4.71	0 0 100.00 0	0 1.47 92.31 6.22	0 0.98 94.88 4.15	0 0 100.00 0	0 3.17 93.59 3.25	0 2.05 95.85 2.10	0 0.57 96.34 3.08	0 1.34 94.11 4.55	0 1.07 94.90 4.04
FRESH PRODUCE Sufficient Minimel No variety Not Available	0 1.14 78.62 20.24	0 1.90 83.16 14.93	0 1.63 81.53 16.84	0 0 65.18 34.82	0 0 80.32 19.68	0 0 75.28 24.72	0 0 78.18 21.82	0 1.58 83.35 15.06	0 1.02 81.53 17.45	0 0.67 75.80 23.53	0 1.41 82.58 16.01	0 1.15 80.19 18.66
PACKAGED PRODUCE Sufficient Minimel No variety Not Available	0 16.25 83.75 0	0 14.11 84.70 1.19	0 14.88 84.36 0.76	0 5.87 94.13 0	1.47 10.56 86.47 1.51	0.98 9.00 89.02 1.00	0 5.50 94.50 0	0 25.03 73.30 1.66	0 18.13 80.79 1.08	0 11.85 88.15 0	0.32 15.65 82.67 1.36	0.21 14.31 84.60 0.88
Number of stores	93	162	255	34	66	100	36	64	100	163	292	455

31

196

### Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Amount	T	Urben		1	Mixed		1	Rural		1	Total	
of Variety in Package Types	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 46.73 53.27	0 2.47 28.45 69.08	0 1.78 33.52 64.69	0 0 27.97 72.03	0 2.99 34.85 62.16	0 2.56 33.86 63.58	0 0 100.00	0 5.62 44.24 50.14	0 5.08 40.03 54.89	0 0 40.35 59.65	0 3.01 32.60 64.39	0 2.37 34.25 63.38
PROCESSED MEAT Sufficient tinimal to variety tot Available	0 9.88 30.81 59.31	1.24 8.62 14.80 75.35	0.89 8.97 19.24 70.90	0 18.49 27.49 54.02	0 12.53 22.12 65.36	0 13.38 22.89 63.73	0 0 100.00	5.55 22.19 22.19 50.07	5.02 20.08 20.08 54.83	0 11.49 28.74 59.77	1.23 11.58 18.40 68.80	0.97 11.56 20.60 66.87
FRESH POULTRY Sufficient finimel lo variety lot Available	0 3.29 40.45 56.25	1.24 3.68 23.53 71.55	0.89 3.57 28.23 67.31	0 0 9.24 90.76	0 1.45 20.65 77.90	0 1.24 19.02 79.74	0 0 100.00	5.62 0 21.91 72.48	5.08 0 19.82 75.10	0 2.38 31.40 66.22	1.24 2.43 22.26 74.08	0.97 2.42 24.21 72.40
RESH SEAFOOD Sufficient linimel lo variety lot Available	3.21 0 18.93 77.85	4.96 1.24 28.33 65.48	4.47 0.89 25.72 68.92	8.76 0 26.65 64.59	1.55 3.01 4.56 90.89	2.58 2.58 7.72 87.12	0 0 49.32 50.68	10.95 0 0 89.05	9.91 0 4.70 85.39	4.39 0 22.03 73.58	4.30 1.78 16.18 77.74	4.32 1.40 17.42 76.86
ACKAGED MEAT Sufficient linimal lo variety lot Available	0 3.29 44.30 52.41	0 0 51.59 48.41	0 0.91 49.56 49.52	0 0 45.14 54.86	0 0 45.68 54.32	0 0 45.61 54.39	0 0 49.32 50.68	0 5.33 27.67 67.00	0 4.83 29.73 65.44	0 2.38 44.71 52.92	0 0.58 46.75 52.68	0 0.96 46.31 52.73
RESH PRODUCE sufficient linimal o variety ot Available	0 0 28.93 71.07	0 2.53 27.86 69.61	0 1.83 28.16 70.02	0 0 27.49 72.51	0 0 30.01 69.99	0 0 29.65 70.35	0 0 100.00	0 5.33 27.95 66.71	0 4.83 25.29 69.88	0 0 27.38 72.62	0 1.87 28.69 69.44	0 1.47 28.41 70.12
ACKAGED PRODUCE ufficient inimal o variety ot Available	0 0 50.33 49.67	0 1.26 61.17 37.59	0 0.89 58.16 40.94	0 0 54.26 45.74	0 0 64.27 35.73	0 0 62.84 37.16	0 0 100.00 0	5.33 0 22.40 72.26	4.83 0 29.79 65.38	0 0 53.34 46.66	0.58 0.63 58.17 40.62	0.45 0.50 57.14 41.91
unber of stores	32	82	114	11	64	75	2	18	20	45	164	209

### Specialty Stores

197

.

# Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Group and Amount of Variety in		Urban			Mixed			Rural			Total	
Package Type	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 38.54 61.46	0 0 43.88 56.12	0 0 43.09 56.91	0 0 41.29 58.71	0 0 33.71 66.29	0 0 34.95 65.05	0 0 21.47 78.53	0 0 49.79 50.21	0 0 42.60 57.40	0 0 36.25 63.75	0 0 40.35 59.65	0 0 39.66 60.34
PROCESSED MEAT Sufficient Minimal No variety Not Available	0 37.06 45.27 17.66	0.40 35.94 51.35 12.31	0.34 36.11 50.45 13.10	0 26.24 52.13 21.63	0.45 34.31 54.57 10.67	0.37 32.99 54.17 12.47	0 26.29 65.21 8.49	1.58 39.71 49.93 8.77	1.18 36.31 53.81 8.70	0 30.57 52.00 17.43	0.56 35.71 52.52 11.20	0.47 34.84 52.43 12.26
FRESH POULTRY Sufficient Hinimal No variety Not Available	0 0 6.96 93.04	0 0 10.75 89.25	0 0 10.18 89.82	0 0 2.10 97.90	0 0 1.83 98.17	0 0 1.87 98.13	0 0 100.00	0 1.58 1.60 96.81	0 1.18 1.20 97.62	0 0 3.62 96.38	0 0.19 5.94 93.87	0 0.16 5.55 94.29
FRESH SEAFOOD Sufficient Hinimel No variety Not Available	0 0 100.00	0 0 1.62 98.38	0 0 1.38 98.62	0 0 2.10 97.90	0 0 100.00	0 0.35 99.65	0 0 100.00	0 0 100.00	0 0 100.00	0 0.85 99.15	0 0.75 99.25	0 0.77 99.23
PACKAGED MEAT Sufficient Minimel No variety Not Available	0 0 97.91 2.09	0 0 97.22 2.78	0 0 97.32 2.68	0 0 97.90 2.10	0 0 96.91 3.09	0 0 97.07 2.93	0 0 100.00 0	0 1.58 96.99 1.43	0 1.18 97.75 1.06	0 0 98.32 1.68	0 0.19 97.06 2.75	0 0.16 97.28 2.57
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 0 76.16 23.84	0 0 80.71 19.29	0 0 80.03 19.97	0 0 67.82 32.18	0 0 69.02 30.98	0 0 68.82 31.18	0 0 73.82 26.18	0 0 73.21 26.79	0 0 73.37 26.63	0 0 72.35 27.65	0 0 74.95 25.05	0 0 74.51 25.49
PACKAGED PRODUCE Sufficient Minimal No variety Not Available	0 9.19 90.81 0	0 3.24 96.39 0.37	0 4.13 95.56 0.31	0 2.22 97.78 0	0 3.98 96.02 0	0 3.69 96.31 0	0 0 100.00 0	0 13.78 86.22 0	0 10.28 89.72 0	0 4.56 95.44 0	0 4.81 95.02 0.17	0 4.77 95.09 0.14
Number of stores	44	244	288	46	227	273	23	66	89	113	537	650

198

## Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

ood Group and Amount f Variety in		Urban		1	Mixed		1	Rural			Total	
of Variety in Package Types	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 57.76 42.24	0 0 18.05 81.95	0 0 24.76 75.24	0 0 66.74 33.26	0 0 39.91 60.09	0 0 43.40 56.60	0 0 63.60 36.40	0 0 40.51 59.49	0 0 44.97 55.03	0 0 62.84 37.16	0 0 34.20 65.80	0 0 38.90 61.10
PROCESSED MEAT Sufficient Minimel No variety Not Available	0 41.80 41.46 16.74	0 55.86 37.09 7.05	0 53.48 37.83 8.69	0 26.05 57.98 15.96	0 41.03 52.60 6.37	0 39.09 53.30 7.62	0 63.67 31.16 5.17	0 37.21 57.84 4.95	0 42.32 52.69 4.99	0 46.98 41.57 11.44	0 43.67 50.28 6.04	0 44.22 48.85 6.93
FRESH POULTRY Sufficient Minimel No variety Not Available	0 0 0 100.00	0 0 100.00	0 0 100.00	0 0 8.09 91.91	0 0 1.28 98.72	0 0 2.16 97.84	0 0 5.31 94.69	0 0 2.56 97.44	0 0 3.09 96.91	0 0 4.60 95.40	0 0 1.39 98.61	0 0 1.92 98.08
RESH SEAFOOD Sufficient Hinimel Io veriety Iot Available	00.00	0 0 100.00	0 0 100.00	0 0 100.00	0 0 100.00	0 0 100.00	0 0 100.00	0 0 100.00	0 0 100.00	0 0 100.00	0 0 100.00	0 0 100.00
PACKAGED MEAT Sufficient Sinimal So variety Sot Available	0 0 91.24 8.76	0 0 98.15 1.85	0 0 96.99 3.01	0 0 100.00 0	0 1.29 98.71 0	0 1.13 98.87 0	0 0 100.00 0	0 0 97.56 2.44	0 0 98.03 1.97	0 0 97.54 2.46	0 0.48 98.14 1.38	0 0.40 98.04 1.56
RESH PRODUCE sufficient linimal o variety ot Available	0 0 17.85 82.15	0 1.94 81.30 16.76	0 1.61 70.58 27.81	0 0 51.11 48.89	0 0 82.30 17.70	0 0 78.24 21.76	0 0 69.26 30.74	0 0 74.75 25.25	0 73.69 26.31	0 0 49.75 50.25	0 0.53 79.30 20.17	0 0.44 74.45 25.11
ACKAGED PRODUCE Sufficient linimel o variety ot Available	0 8.76 91.24 0	0 7.28 92.72 0	0 7.53 92.47 0	0 0 100.00 0	0 7.51 92.49 0	0 6.54 93.46 0	0 10.62 89.38 0	0 11.30 88.70 0	0 11.17 88.83 0	0 7.12 92.88 0	0 8.81 91.19 0	0 8.54 91.46 0
unber of stores	12	55	67	12	78	90	19	78	97	43	211	254

#### Grocery/Gas Outlets

199

## Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Other Stores

Food Group and Amount of Variety in		Urban			Mixed			Rural			Total	
Package Types	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 12.21 87.79	0 1.19 18.88 79.93	0 0.80 16.71 82.49	0 5.50 20.96 73.54	0 1.25 15.95 82.80	0 2.03 16.87 81.10	0 0 36.69 63.31	0 0 43.13 56.87	0 0 40.82 59.18	0 1.28 19.84 78.88	0 1.03 21.58 77.39	0 1.10 21.09 77.81
PROCESSED MEAT Sufficient Ninimal No variety Not Available	0 2.41 14.80 82.80	0 10.57 20.03 69.41	0 7.91 18.32 73.77	0 21.52 15.88 62.60	2.48 12.41 12.20 72.91	2.02 14.08 12.88 71.02	0 31.87 25.99 42.14	0 30.41 32.94 36.65	0 30.93 30.45 38.62	0 13.59 17.61 68.80	1.00 14.49 18.94 65.57	0.72 14.24 18.56 66.48
FRESH POULTRY Sufficient Ninimal No variety Not Available	0 0 2.47 97.53	0 0 12.05 87.95	0 0 8.93 91.07	5.50 0 5.29 89.21	3.71 0 4.98 91.31	4.04 0 5.04 90.92	0 0 100.00	0 18.56 81.44	0 0 11.92 88.08	1.28 0 2.56 96.16	1.50 0 10.24 88.26	1.44 0 8.08 90.48
FRESH SEAFOOD Sufficient Hinimal No variety Not Aveilable	0 0 2.38 97.62	0 0 3.47 96.53	0 0 3.12 96.88	5.50 0 5.08 89.42	0 1.25 2.46 96.29	1.01 1.02 2.94 95.02	0 0 100.00	0 0 100.00	0 0 100.00	1.28 0 2.46 96.26	0 0.51 2.51 96.99	0.36 0.36 2.49 96.78
PACKAGED MEAT Sufficient Hinimal No variety Not Available	0 2.59 36.06 61.35	0 1.19 50.43 48.38	0 1.65 45.75 52.61	0 5.50 47.42 47.08	1.22 2.49 45.53 50.76	1.00 3.04 45.88 50.08	0 0 68.13 31.87	0 2.84 78.87 18.29	0 1.83 75.03 23.15	0 2.67 46.04 51.29	0.49 1.98 53.01 44.52	0.36 2.18 51.05 46.42
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 4.57 69.26 26.17	0 1.19 63.46 35.34	0 2.29 65.35 32.35	0 5.50 73.75 20.75	0 9.71 48.99 41.30	0 8.94 53.54 37.52	0 0 74.22 25.78	0 0 82.70 17.30	0 0 79.67 20.33	0 3.74 71.44 24.82	0 4.44 60.70 34.86	0 4.25 63.72 32.04
PACKAGED PRODUCE Sufficient Minimal No variety Not Available	0 2.41 55.34 42.26	0 2.30 77.91 19.79	0 2.33 70.56 27.11	5.50 0 63.44 31.06	3.71 4.95 66.05 25.29	4.04 4.04 65.57 26.35	0 5.31 68.13 26.56	0 15.40 69.59 15.01	0 11.79 69.07 19.14	1.28 2.51 60.15 36.06	1.50 5.47 71.78 21.25	1.44 4.64 68.51 25.41
Number of stores	42	85	127	19	82	101	19	33	52	80	200	280

### Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Amount of Variety in		Urban			Nixed			Rural			Total	
Package Types	Nigh- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0.88 48.33 50.79	0 9.70 41.04 49.26	0 7.71 42.69 49.61	0 8.25 38.63 53.12	0 11.67 37.76 50.57	0 11.10 37.91 51.00	0 4.51 45.92 49.57	0 9.21 51.65 39.14	0 8.14 50.34 41.52	0 3.75 45.06 51.19	0 10.33 41.85 47.83	0 8.97 42.51 48.52
PROCESSED MEAT Sufficient Minimel No variety Not Available	1.69 32.28 33.04 33.00	14.42 28.02 33.41 24.15	11.54 28.98 33.33 26.15	10.95 24.43 38.58 26.03	16.63 28.79 33.71 20.88	15.67 28.06 34.53 21.74	9.85 33.56 39.61 16.98	14.23 41.52 32.74 11.51	13.23 39.70 34.31 12.76	6.06 30.33 36.02 27.59	15.19 30.85 33.39 20.57	13.30 30.74 33.94 22.02
FRESH POULTRY Sufficient dinimel do variety dot Available	0.43 5.25 24.31 70.01	4.25 12.92 16.22 66.61	3.39 11.18 18.05 67.38	2.81 8.15 7.54 81.50	4.22 15.80 7.31 72.66	3.99 14.51 7.35 74.15	0 5.39 8.11 86.50	2.26 11.64 18.44 67.65	1.75 10.21 16.08 71.96	1.01 6.10 16.08 76.81	3.87 13.73 13.40 69.01	3.28 12.15 13.95 70.62
RESH SEAFOOD Sufficient linimel lo variety lot Available	1.19 0.44 5.81 92.56	5.04 3.04 12.73 79.19	4.17 2.45 11.17 82.21	1.39 1.36 6.81 90.43	2.89 2.89 9.03 85.19	2.64 2.63 8.66 86.07	0 0 3.55 96.45	2.26 0.80 5.85 91.09	1.74 0.62 5.32 92.32	0.99 0.61 5.61 92.79	3.73 2.56 10.08 83.62	3.17 2.16 9.16 85.51
PACKAGED MEAT Sufficient linimal lo variety lot Available	0.44 4.81 74.49 20.25	3.02 14.90 70.28 11.81	2.44 12.62 71.23 13.72	1.43 10.92 76.61 11.04	5.22 15.26 66.90 12.62	4.58 14.53 68.54 12.36	0 8.11 85.55 6.34	2.54 16.40 74.69 6.37	1.96 14.51 77.17 6.36	0.63 7.25 77.46 14.66	3.73 15.31 69.88 11.08	3.09 13.65 71.45 11.82
RESH PRODUCE Sufficient linimal o variety ot Available	0 4.42 65.13 30.45	0 18.07 61.13 20.80	0 14.99 62.03 22.98	0 10.99 57.64 31.37	0.44 20.63 53.18 25.75	0.37 19.01 53.93 26.69	0 9.85 66.19 23.96	0 18.40 63.06 18.55	0 16.45 63.77 19.78	0 7.45 63.24 29.32	0.16 19.06 58.60 22.18	0.13 16.67 59.55 23.65
ACKAGED PRODUCE ufficient inimal o variety ot Available	2.05 12.74 71.39 13.82	15.49 9.25 69.10 6.16	12.45 10.04 69.62 7.89	10.31 6.90 75.22 7.57	18.72 7.95 66.89 6.43	17.31 7.77 68.29 6.63	6.32 8.99 80.16 4.53	13.03 24.62 57.06 5.28	11.50 21.05 62.33 5.11	5.31 10.28 74.36 10.05	16.20 11.68 66.02 6.10	13.95 11.39 67.74 6.91
umber of stores	245	819	1064	145	694	839	111	364	475	501	1877	2378

All Store Types

201

## Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Group and Amount of Variety in Package Types		Urben			Mixed			Rural			Total	
variety in Package Types	High- poverty	Other	Total	High- poverty	Other	Total	Nigh- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 77.87 22.13 0	0 96.02 3.98 0	0 95.04 4.96 0	0 100.00 0 0	0 92.09 7.91 0	0 92.80 7.20 0	0 100.00 0 0	0 80.59 19.41 0	0 82.43 17.57 0	0 92.90 7.10 0	0 92.10 7.90 0	0 92.16 7.84 0
EGGS Sufficient Minimal No variety Not Available	32.48 45.11 22.41 0	43.70 34.82 21.48 0	43.10 35.37 21.53 0	43.46 35.43 21.11 0	43.56 32.07 24.37 0	43.55 32.37 24.08 0	0 50.23 49.77 0	25.81 34.78 39.41 0	23.36 36.25 40.39 0	31.15 41.53 27.32 0	40.88 33.74 25.38 0	40.16 34.32 25.52 0
CEREALS, GRAINS Sufficient Minimal No variety Not Available	100.00 0 0	94.61 1.98 3.41 0	94.90 1.87 3.23 0	100.00 0 0	89.84 5.18 4.98 0	90.75 4.72 4.54 0	100.00 0 0	78.68 14.31 7.01 0	80.70 12.95 6.35 0	100.00 0 0	90.29 5.13 4.58 0	91.01 4.75 4.24 0
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	77.73 22.27 0 0	81.76 14.79 2.77 0.68	81.54 15.19 2.63 0.65	100.00 0 0	79.88 18.72 1.40 0	81.67 17.05 1.27 0	100.00 0 0	80.47 17.76 1.77 0	82.33 16.07 1.60 0	92.85 7.15 0	80.83 16.78 2.05 0.31	81.72 16.07 1.93 0.29
DINNER MIXTURES Sufficient Minimal No variety Not Available	44.40 44.40 11.21 0	80.81 13.21 5.99 0	78.86 14.87 6.27 0	71.16 28.84 0 0	76.83 15.25 7.92 0	76.33 16.46 7.21 0	66.67 33.33 0 0	45.88 38.21 15.91 0	47.85 37.74 14.40 0	61.66 34.74 3.60 0	73.86 17.86 8.28 0	72.96 19.11 7.93 0
DTHER FOODS Sufficient Hinimal No variety Not Available	88.79 11.21 0 0	94.09 4.51 1.40 0	93.81 4.87 1.32 0	100.00 0 0	89.84 8.02 2.14 0	90.75 7.31 1.95 0	100.00 0 0	80.38 16.08 3.54 0	82.24 14.55 3.21 0	96.40 3.60 0	90.31 7.67 2.02 0	90.76 7.37 1.87 0
Number of stores	9	154	163	14	138	152	6	55	61	29	347	376

### Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Amount of		Urban			Mixed			Rural			Total	
variety in Package Types	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 39.35 44.82 15.83	0 48.17 40.99 10.84	0 45.91 41.97 12.12	0 43.81 56.19 0	0 73.95 26.05 0	0 68.51 31.49 0	0 83.33 16.67 0	0 90.34 9.66 0	0 89.61 10.39 0	0 49.86 42.53 7.60	0 72.56 24.16 3.27	0 68.52 27.43 4.05
EGGS Sufficient Hinimel Ho variety Hot Available	0 23.90 76.10 0	0 24.36 64.99 10.64	0 24.24 67.84 7.92	11.21 22.12 55.31 11.36	15.07 23.16 59.11 2.66	14.37 22.97 58.42 4.23	0 67.11 32.89 0	15.95 23.88 60.17 0	14.31 28.34 57.36 0	3.50 32.30 60.65 3.55	10.86 23.80 61.30 4.03	9.55 25.32 61.18 3.95
EREALS, GRAINS Sufficient Minimal To variety Tot Available	53.93 15.74 30.33 0	32.46 48.69 16.33 2.51	37.96 40.25 19.92 1.87	66.37 11.06 22.57 0	53.20 36.47 10.33 0	55.58 31.89 12.54 0	100.00 0 0	71.86 26.30 1.84 0	74.76 23.59 1.65 0	67.37 11.01 21.61 0	54.22 36.19 8.83 0.76	56.56 31.71 11.10 0.62
BAKERY PRODUCTS Sufficient Hinimal Ho variety Hot Available	30.42 46.16 7.58 15.83	23.70 51.74 19.21 5.36	25.42 50.31 16.23 8.04	21.53 67.11 11.36 0	58.56 36.15 5.29 0	51.88 41.74 6.39 0	66.67 33.33 0 0	72.06 24.13 3.81 0	71.50 25.08 3.42 0	35.16 50.05 7.19 7.60	53.30 36.16 8.92 1.62	50.07 38.63 8.61 2.68
DINNER MIXTURES Sufficient Minimal lo variety lot Available	8.06 38.20 45.49 8.25	2.71 32.17 65.12 0	4.08 33.71 60.09 2.11	0 55.01 44.99 0	20.30 51.09 28.61 0	16.64 51.80 31.57 0	34.22 65.78 0 0	14.29 79.86 5.85 0	16.35 78.40 5.25 0	10.97 49.17 35.90 3.96	12.64 56.61 30.75 0	12.34 55.28 31.67 0.71
THER FOODS Sufficient linimel lo veriety lot Available	31.48 44.82 23.70 0	32.43 51.37 16.20 0	32.19 49.69 18.12 0	55.60 33.04 11.36 0	63.49 33.84 2.66 0	62.07 33.70 4.23 0	83.33 16.67 0 0	82.03 17.97 0 0	82.16 17.84 0 0	49.77 35.30 14.93 0	61.35 32.94 5.71 0	59.29 33.36 7.35 0
unber of stores	13	37	50	9	39	48	6	50	56	28	126	154

Large Grocery Stores

## Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Small Grocery Stores

Food Group and Amount of Variety in Package Types		Urben			Mixed			Rural			Total	
Variety in Package Types	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Hinimal No variety Not Available	0 4.37 83.71 11.92	0 8.60 80.59 10.81	0 7.08 81.71 11.21	0 2.86 73.40 23.75	0 19.68 72.79 7.53	0 14.07 73.00 12.94	0 2.79 83.27 13.94	0 25.48 69.87 4.65	0 17.46 74.61 7.93	0 3.73 81.53 14.75	0 14.63 76.60 8.78	0 10.79 78.33 10.88
EGGS Sufficient Ninimal No variety Not Available	0 6.20 80.82 12.98	0.60 4.40 77.90 17.09	0.39 5.05 78.95 15.62	0 2.86 59.04 38.11	1.47 0 80.42 18.11	0.98 0.95 73.30 24.78	0 0 89.03 10.97	0 3.02 89.10 7.88	0 1.96 89.08 8.97	0 4.20 78.16 17.64	0.66 3.14 80.84 15.36	0.43 3.51 79.89 16.16
CEREALS, GRAINS Sufficient Minimal No variety Not Available	6.84 48.59 43.54 1.03	4.24 41.35 52.52 1.89	5.17 43.95 49.30 1.58	3.01 26.53 67.61 2.86	4.54 33.46 58.95 3.05	4.03 31.15 61.83 2.99	0 41.82 55.39 2.79	17.44 48.40 32.50 1.66	11.28 46.07 40.59 2.06	4.61 42.67 50.94 1.78	7.11 41.11 49.69 2.10	6.23 41.66 50.13 1.98
BAKERY PRODUCTS Sufficient Hinimal No variety Not Available	4.49 51.22 39.97 4.32	8.63 40.18 42.74 8.44	7.15 44.15 41.74 6.96	0 37.99 56.30 5.71	1.47 50.03 47.00 1.51	0.98 46.02 50.10 2.91	0 41.90 58.10 0	17.42 50.06 29.40 3.13	11.27 47.18 39.54 2.02	2.62 46.55 47.15 3.68	8.92 44.45 40.84 5.78	6.70 45.19 43.06 5.04
DINNER MIXTURES Sufficient Minimal No variety Not Available	0 4.32 93.54 2.14	0 10.35 87.25 2.40	0 8.19 89.51 2.31	0 2.86 97.14 0	0 6.00 92.49 1.51	0 4.96 94.04 1.00	0 2.7( 94.54 2.68	0 27.12 71.21 1.66	0 18.53 79.45 2.02	0 3.69 94.48 1.82	0 12.96 85.00 2.04	0 9.69 88.34 1.97
DTNER FOODS Sufficient Minimel No variety Not Available	1.07 65.06 33.87 0	3.77 59.28 36.35 0.61	2.80 61.35 35.46 0.39	0 35.45 64.55 0	3.03 60.90 34.56 1.51	2.02 52.42 44.56 1.00	0 55.80 44.20 0	9.52 59.66 29.15 1.66	6.16 58.30 34.47 1.08	0.63 57.08 42.29 0	4.83 59.72 34.42 1.03	3.35 58.79 37.20 0.67
Number of stores	93	162	255	34	66	100	36	64	100	163	292	455

.

### Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Specialty Stores

Food Group and Amount of Variety in Package Types		Urban			Mixed			Rural			Total	
variety in Package Types	High- poverty	Other	Total	High- poverty	Other	Total	Nigh- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Hinimal No variety Not Available	0 0 34.89 65.11	0 1.24 38.96 59.80	0 0.89 37.83 61.28	0 0 37.21 62.79	0 1.63 31.71 66.66	0 1.39 32.50 66.10	0 0 100.00	0 16.50 33.43 50.07	0 14.93 30.24 54.83	0 0 33.98 66.02	0 3.03 35.59 61.37	0 2.39 35.25 62.37
EGGS Sufficient Minimal No variety Not Available	0 6.19 35.05 58.76	0 1.24 30.72 68.04	0 2.61 31.92 65.47	0 0 37.45 62.55	0 1.59 19.07 79.35	0 1.36 21.70 76.94	0 0 100.00	5.33 0 22.19 72.48	4.83 0 20.08 75.10	0 4.47 34.14 61.38	0.58 1.24 25.34 72.84	0.45 1.93 27.22 70.40
CEREALS, GRAINS Sufficient Minimal No variety Not Available	0 6.62 47.24 46.14	0 2.53 40.26 57.21	0 3.67 42.20 54.14	0 0 35.53 64.47	0 0 42.39 57.61	0 0 41.41 58.59	0 0 49.32 50.68	5.33 0 11.24 83.43	4.83 0 14.86 80.31	0 4.78 44.56 50.65	0.58 1.29 37.94 60.19	0.45 2.04 39.35 58.16
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	0 12.90 34.97 52.14	1.24 21.49 42.64 34.64	0.89 19.10 40.51 39.50	0 18.25 35.89 45.86	0 21.74 41.03 37.23	0 21.24 40.29 38.47	0 50.68 0 49.32	5.33 27.88 28.09 38.69	4.83 30.05 25.42 39.70	0 15.74 33.72 50.54	1.21 22.27 40.45 36.07	0.95 20.88 39.02 39.16
DINNER MIXTURES Sufficient Minimal No variety Not Available	0 2.98 38.30 58.72	0 0 45.37 54.63	0 0.83 43.40 55.77	0 0 18.01 81.99	0 0 39.64 60.36	0 0 36.54 63.46	0 0 100.00	0 5.33 11.24 83.43	0 4.83 10.17 85.01	0 2.15 31.91 65.94	0 0.58 39.49 59.93	0 0.91 37.88 61.21
DTHER FOODS Sufficient Minimal No variety Not Available	0 9.92 53.12 36.97	0 3.66 69.65 26.68	0 5.40 65.06 29.54	0 9.24 63.63 27.13	0 3.21 67.18 29.61	0 4.08 66.67 29.25	0 0 100.00 0	5.33 0 56.12 38.55	4.83 0 60.30 34.88	0 9.34 57.56 33.10	0.58 3.09 67.25 29.08	0.45 4.43 65.18 29.94
lumber of stores	32	32	114	11	64	75	2	18	20	45	164	209

## Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Group and Amount of Variety in Package Types		Urban			Mixed			Rural			Total	1
variety in Package Types	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 16.24 72.88 10.88	0 24.69 71.25 4.06	0 23.43 71.49 5.08	0 2.10 80.74 17.16	0 14.30 83.93 1.77	0 12.30 83.40 4.30	0 4.65 91.10 4.25	0 18.87 81.13 0	0 15.26 83.66 1.08	0 8.26 79.66 12.08	0 19.67 77.71 2.62	0 17.74 78.04 4.22
EGGS Sufficient Minimal No variaty Not Available	0 4.81 77.61 17.58	0 4.60 83.70 11.70	0 4.63 82.79 12.57	2.19 2.22 76.27 19.32	0 3.13 86.72 10.15	0.36 2.98 85.00 11.66	0 4.54 69.58 25.89	0 4.73 84.78 10.49	0 4.68 80.92 14.40	0.88 3.72 75.47 19.93	0 4.00 85.09 10.91	0.15 3.95 83.46 12.44
CEREALS, GRAINS Sufficient Minimal No variety Not Available	2.44 41.62 55.95 0	2.51 43.60 51.94 1.95	2.50 43.31 52.54 1.66	0 19.81 75.81 4.38	1.32 34.07 61.51 3.10	1.10 31.73 63.86 3.31	0 12.97 78.42 8.61	1.58 35.38 61.51 1.52	1.18 29.69 65.81 3.32	0.97 27.16 68.40 3.47	1.91 38.65 57.06 2.38	1.75 36.71 58.98 2.56
BAKERY PRODUCTS Sufficient Hinimal No variety Not Available	0 41.24 58.76 0	7.05 60.74 30.16 2.05	6.00 57.83 34.43 1.74	0 52.13 45.76 2.10	0.90 73.50 25.60 0	0.75 69.99 28.91 0.35	0 47.47 52.53 0	6.18 62.09 31.74 0	4.61 58.38 37.02 0	0 46.86 52.30 0.85	4.38 66.21 28.45 0.95	3.64 62.94 32.49 0.93
DINMER MIXTURES Sufficient Minimal No variety Not Available	0 16.30 81.61 2.09	0 13.37 84.66 1.96	0 13.81 84.21 1.98	0 4.38 93.51 2.10	0 7.60 89.73 2.67	0 7.07 90.36 2.57	0 4.48 95.52 0	0 18.59 79.87 1.54	0 15.01 83.84 1.15	0 9.16 89.16 1.68	0 11.59 86.20 2.21	0 11.18 86.70 2.12
OTHER FOODS Sufficient Hinimal No variety Not Available	2.49 60.35 37.15 0	1.69 77.90 20.41 0	1.81 75.28 22.91 0	2.22 52.36 45.42 0	2.24 69.57 28.19 0	2.24 66.74 31.02 0	0 30.66 69.34 0	4.67 65.55 29.78 0	3.49 56.69 39.82 0	1.89 51.23 46.88 0	2.28 72.96 24.77 0	2.21 69.28 28.51 0
Number of stores	44	244	288	46	227	273	23	66	89	113	537	650

## Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Grocery/Gas Outlets

Food Group and Amount of		Urban			Mixed			Rural			Total	
Variety in Package Types	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Ninimal No variety Not Available	0 0 91.24 8.76	0 48.49 51.51 0	0 40.30 58.22 1.48	0 0 100.00 0	0 26.29 73.71 0	0 22.87 77.13 0	0 16.29 83.71 0	0 18.56 78.93 2.51	0 18.12 79.85 2.02	0 7.15 90.39 2.46	0 29.52 69.57 0.90	0 25.85 72.99 1.16
EGGS Sufficient Minimal No variety Not Available	0 0 75.28 24.72	0 3.56 81.03 15.41	0 2.96 80.06 16.99	0 0 92.02 7.98	0 2.50 92.44 5.06	0 2.18 92.38 5.44	0 5.59 89.24 5.17	0 7.49 88.65 3.86	0 7.12 88.76 4.11	0 2.46 86.10 11.44	0 4.59 87.98 7.43	0 4.24 87.67 8.09
CEREALS, GRAINS Sufficient Minimal No variety Not Available	0 16.74 74.50 8.76	1.94 52.19 45.88 0	1.61 46.20 50.71 1.48	0 25.06 74.94 0	2.54 44.42 53.04 0	2.21 41.90 55.89 0	5.31 37.25 52.27 5.17	5.10 51.51 38.26 5.13	5.14 48.76 40.97 5.14	2.33 28.08 64.86 4.73	3.30 49.08 45.77 1.85	3.14 45.63 48.90 2.32
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	9.09 49.45 41.46 0	5.50 74.88 19.63 0	6.10 70.58 23.31 0	0 66.30 33.70 0	7.78 76.73 15.49 0	6.77 75.37 17.86 0	0 57.72 42.28 0	5.23 67.67 27.10 0	4.22 65.75 30.03 0	2.55 57.80 39.65 0	6.24 72.96 20.80 0	5.64 70.47 23.89 0
DINNER MIXTURES Suff.[cient Minimal No variety Not Available	0 0 91.24 8.76	0 39.27 60.73 0	0 32.64 65.88 1.48	0 0 100.00 0	0 21.00 77.81 1.19	0 18.27 80.70 1.04	0 16.29 83.71 0	0 12.04 85.52 2.44	0 12.86 85.17 1.97	0 7.15 90.39 2.46	0 22.72 75.96 1.32	0 20.17 78.33 1.51
DTHER FOODS Sufficient Minimal No variety Not Available	0 33.81 66.19 0	5.50 70.17 24.34 0	4.57 64.03 31.40 0	0 67.41 32.59 0	2.60 80.89 16.50 0	2.27 79.14 18.60 0	5.67 68.20 26.13 0	1.22 73.56 25.22 0	2.08 72.53 25.40 0	2.49 58.33 39.18 0	2.89 75.34 21.77 0	2.82 72.55 24.63 0
Number of stores	12	55	67	12	78	90	19	78	97	43	211	254

.

# Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Other Stores

Food Group and Amount of		Urban			Nixed			Rural			Total	
Variety in Package Types	Nigh- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 7.37 28.90 63.73	0 6.06 55.62 38.32	0 6.49 46.91 46.60	0 5.50 47.42 47.08	0 13.60 51.65 34.75	0 12.11 50.88 37.01	0 5.31 58.07 36.61	0 31.20 56.87 11.93	0 21.93 57.30 20.77	0 6.46 39.88 53.65	0 13.14 54.22 32.65	0 11.26 50.19 38.55
EGGS Sufficient Kinimal No variety Not Available	0 0 45.65 54.35	0 3.58 41.91 54.51	0 2.41 43.13 54.46	5.50 0 31.89 62.60	2.46 7.55 40.39 49.60	3.02 6.16 38.83 51.99	0 0 63.10 36.90	0 9.52 69.91 20.58	0 6.11 67.47 26.42	1.28 0 46.44 52.28	0.99 6.13 45.78 47.09	1.07 4.41 45.97 48.55
CEREALS, GRAINS Sufficient Minimel No variety Not Available	0 12.24 33.68 54.08	0 15.39 45.05 39.56	0 14.36 41.35 44.29	5.50 5.36 47.63 41.50	7.39 19.83 26.87 45.90	7.05 17.18 30.68 45.10	0 31.52 36.97 31.52	6.36 27.41 •5.14 21.09	4.08 28.88 42.22 24.82	1.28 15.05 37.68 45.99	4.01 19.11 37.72 39.16	3.24 17.97 37.71 41.08
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	0 9.83 40.54 49.62	4.75 32.25 36.32 26.68	3.20 24.95 37.69 34.16	5.50 26.81 26.18 41.50	3.71 22.06 41.59 32.63	4.04 22.93 38.76 34.26	0 31.44 31.73 36.83	9.40 39.45 38.98 12.16	6.03 36.59 36.38 20.99	1.28 18.73 35.19 44.81	5.08 29.29 38.88 26.76	4.01 26.32 37.84 31.83
DINNER MIXTURES Sufficient Minimel No variety Not Available	0 0 41.26 58.74	0 4.82 60.08 35.10	0 3.25 53.95 42.80	5.50 0 47.42 47.08	2.49 4.95 50.43 42.13	3.04 4.04 49.88 43.04	0 5.31 57.72 36.97	0 15.76 63.15 21.09	0 12.02 61.21 26.77	1.28 1.21 46.46 51.04	1.01 6.63 56.67 35.69	1.08 5.11 53.80 40.01
DTHER FOODS Sufficient Minimel No variety Not Available	0 14.59 54.80 30.62	0 22.40 52.09 25.52	0 19.85 52.97 27.18	5.50 10.93 47.01 36.56	6.20 17.22 51.03 25.55	6.07 16.06 50.29 27.57	0 31.66 63.03 5.31	6.24 55.06 26.54 12.16	4.01 46.68 39.60 9.71	1.28 17.64 54.87 26.21	3.51 25.54 47.56 23.39	2.88 23.32 49.62 24.18
Number of stores	42	85	127	19	82	101	19	33	52	80	200	280

.

## Frequency Distribution of Retailers by Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

All Store Types

Food Group and Amount of		Urban			Mixed			Rural			Total	
variety in Package Types	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 10.79 61.93 27.29	0 33.30 52.88 13.81	0 28.22 54.93 15.86	0 14.37 63.64 21.99	0 33.77 54.67 11.56	0 30.50 56.18 13.32	0 15.46 71.09 13.45	0 40.31 54.75 4.95	0 34.63 58.48 6.89	0 12.80 64.38 22.81	0 34.79 53.89 11.32	0 30.26 56.05 13.69
EGGS Sufficient Minimel No variety Not Available	1.18 6.97 65.52 26.33	8.34 10.64 60.16 20.86	6.73 9.81 61.37 22.09	6.28 6.14 58.15 29.42	9.95 10.04 61.06 18.95	9.33 9.38 60.57 20.71	0 8.24 73.85 17.91	6.41 12.44 71.55 9.60	4.94 11.48 72.08 11.50	2.37 7.01 65.22 25.40	8.56 10.76 62.64 18.04	7.29 9.99 63.17 19.56
CEREALS, GRAINS Sufficient Minimal No variety Not Available	9.59 30.53 43.69 16.18	21.01 29.09 39.00 10.90	18.43 29.41 40.06 12.10	15.14 15.96 56.47 12.44	22.92 24.73 40.30 12.06	21.61 23.25 43.02 12.12	11.71 28.02 50.40 9.86	27.24 34.12 30.88 7.76	23.70 32.73 35.34 8.24	11.62 25.87 48.75 13.76	22.88 28.45 37.94 10.73	20.55 27.92 40.17 11.36
BAKERY PRODUCTS Sufficient Hinimal No variety Not Available	6.61 35.86 39.62 17.91	21.26 41.66 28.18 8.90	17.95 40.35 30.77 10.93	11.65 40.01 37.38 10.96	20.96 47.75 23.85 7.44	19.40 46.44 26.13 8.04	8.99 41.41 42.43 7.17	28.67 45.36 22.37 3.60	24.18 44.46 26.95 4.41	8.55 38.23 39.59 13.63	22.55 44.57 25.51 7.37	19.66 43.26 28.41 8.66
DINNER MIXTURES Sufficient Minimal No variety Not Available	2.05 8.62 69.44 19.89	15.33 13.11 61.38 10.17	12.33 12.09 63.20 12.37	7.55 8.24 71.10 13.11	16.73 11.93 59.63 11.71	15.18 11.31 61.56 11.94	5.44 10.89 74.71 8.97	8.95 29.33 54.53 7.19	8.15 25.12 59.14 7.60	4.34 9.00 71.04 15.62	14.64 15.74 59.45 10.17	12.51 14.35 61.85 11.29
DTHER FOODS Sufficient Minimel No veriety Not Available	5.79 43.76 40.32 10.14	20.81 45.46 28.29 5.44	17.41 45.08 31.00 6.50	14.47 34.69 43.97 6.88	23.53 43.42 27.15 5.90	22.00 41.95 29.98 6.07	10.86 42.45 45.78 0.91	27.26 47.81 21.60 3.33	23.51 46.59 27.12 2.78	9.34 40.91 42.52 7.23	23.02 45.16 26.61 5.21	20.19 44.28 29.90 5.63
lumber of stores	245	819	1064	145	694	839	111	364	475	501	1877	2378

209

.

# Average Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Group and Amount of Variety in Package Types		Urben			Nixed			Rural			Total		
variety in Package Types	High- poverty	Other	Total										
FRESH MEAT	1.32	1.42	1.42	1.59	1.41	1.42	1.40	1.28	1.29	1.46	1.39	1.40	
PROCESSED MEAT	2.41	2.67	2.65	2.81	2.71	2.72	2.86	2.48	2.51	2.69	2.65	2.66	
FRESH POULTRY	1.90	2.09	2.08	2.14	1.99	2.01	1.46	1.57	1.56	1.92	1.97	1.97	
FRESH SEAFOOD	0.75	1.47	1.43	0.50	1.07	1.02	0.50	0.52	0.51	0.58	1.16	1.12	
PACKAGED NEAT	1.97	2.06	2.05	2.21	2.10	2.11	1.75	1.85	1.84	2.04	2.04	2.04	
FRESH PRODUCE	1.63	1.87	1.86	1.94	1.90	1.90	1.80	1.68	1.69	1.81	1.85	1.85	
PACKAGED PRODUCE	2.38	2.62	2.61	2.77	2.63	2.64	2.66	2.38	2.41	2.62	2.59	2.59	
DAIRY PRODUCTS	1.92	2.26	2.24	2.29	2.21	2.22	2.26	2.04	2.06	2.17	2.21	2.20	
EGGS	2.08	2.20	2.20	2.20	2.17	2.18	1.49	1.85	1.81	2.02	2.14	2.13	
CEREALS, GRAINS	2.92	2.85	2.86	2.97	2.79	2.81	2.94	2.62	2.65	2.95	2.79	2.80	
BAKERY PRODUCTS	2.66	2.73	2.72	2.85	2.74	2.75	2.63	2.70	2.69	2.75	2.73	2.73	
DINNER MIXTURES	2.24	2.60	2.58	2.58	2.51	2.52	2.57	2.21	2.24	2.47	2.51	2.50	
OTHER FOODS	2.68	2.88	2.87	2.91	2.82	2.83	2.75	2.69	2.70	2.80	2.83	2.82	
Number of stores	9	154	163	14	138	152	6	55	61	29	347	376	

### Large Grocery Stores

Food Group and Amount of Variety in Package Types		Urben			Mixed			Rural		Total		
Variety in Package Types	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	Nigh- poverty	Other	Total
FRESH MEAT	0.65	0.67	0.67	0.99	1.03	1.03	1.44	1.13	1.17	0.92	0.96	0.96
PROCESSED MEAT	1.76	1.51	1.57	2.11	2.03	2.05	2.72	2.28	2.33	2.07	1.97	1.99
FRESH POULTRY	0.82	0.67	0.71	0.87	1.19	1.13	1.52	1.15	1.19	0.98	1.02	1.01
FRESH SEAFOOD	0.40	0.08	0.16	0.12	0.05	0.06	0.00	0.30	0.27	0.23	0.16	0.17
PACKAGED MEAT	1.15	1.03	1.06	1.31	1.30	1.31	1.72	1.51	1.53	1.32	1.30	1.31
FRESH PRODUCE	0.85	0.96	0.93	1.08	1.33	1.28	1.71	1.37	1.41	1.10	1.23	1.21
ACKAGED PRODUCE	1.42	1.45	1.44	1.86	1.92	1.91	2.38	2.16	2.18	1.76	1.87	1.85
ALRY PRODUCTS	1.13	1.33	1.28	1.46	1.81	1.74	2.00	1.97	1.98	1.41	1.73	1.67
ECCS	1.23	1.13	1.15	1.32	1.49	1.46	1.66	1.54	1.56	1.35	1.40	1.39
FREALS CRAINS	2.01	2.04	2.03	2.29	2.40	2.38	2.85	2.64	2.67	2.27	2.39	2.37
AVERY PRODUCTS	1.80	1.89	1.87	2.13	2.46	2.40	2.60	2.63	2.62	2.07	2.35	2.30
TINED MITTINES	1.33	1.17	1.21	1.63	1.83	1.79	2.35	2.08	2.11	1.64	1.73	1.71
THER FOOR	2.05	2.08	2.07	2.26	2.52	2.47	2.71	2.66	2.67	2.25	2.44	2.41
lumber of stores	13	37	50	9	39	48	6	50	56	28	126	154

210

.

# Average Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Amount of		Urban			Mixed			Rural		Total		
variety in Package Types	High- poverty	Other	Total	Nigh- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT	0.26	0.21	0.23	0.10	0.20	0.17	0.12	0.34	0.26	0.20	0.23	0.22
PROCESSED MEAT	1.27	0.99	1.09	0.95	1.00	0.98	1.16	1.37	1.30	1.18	1.07	1.11
FRESH POULTRY	0.29	0.15	0.20	0.05	0.09	0.07	0.03	0.14	0.10	0.19	0.13	0.15
FRESH SEAFOOD	0.03	0.02	0.03	0.03	0.00	0.01	0.00	0.03	0.02	0.02	0.02	0.02
PACKAGED NEAT	0.64	0.60	0.61	0.54	0.57	0.56	0.60	0.72	0.68	0.61	0.62	0.62
FRESH PRODUCE	0.52	0.50	0.51	0.39	0.41	0.40	0.37	0.60	0.51	0.46	9.50	0.49
PACKAGED PRODUCE	1.02	0.96	0.98	0.88	1.02	0.97	0.93	1.25	1.14	0.97	1.03	1.01
DAIRY PRODUCTS	0.60	0.80	0.73	0.61	0.92	0.82	0.73	1.10	0.97	0.63	0.89	0.80
EGGS	0.91	0.88	0.89	0.64	0.83	0.76	0.88	0.96	0.92	0.85	0.88	0.87
CEREALS, GRAINS	1.51	1.35	1.41	1.09	1.32	1.25	1.15	1.78	1.56	1.35	1.43	1.40
BAKERY PRODUCTS	1.52	1.43	1.46	1.30	1.53	1.45	1.35	1.73	1.60	1.44	1.52	1.49
DINNER MIXTURES	0.74	0.67	0.69	0.47	0.67	0.61	0.66	1.06	0.91	0.67	0.75	0.72
OTHER FOODS	1.67	1.61	1.63	1.34	1.62	1.53	1.42	1.85	1.70	1.55	1.66	1.62
Number of stores	93	162	255	34	66	100	36	64	100	163	292	455

Smal	Grocer	v Stores

# Specialty Stores

Food Group and Amount of Variety in Package Types		Urban			Nixed		Rural			Total		
Variety in Package Types	High- poverty	Other	Total									
FRESH MEAT	0.35	0.29	0.31	0.28	0.37	0.36	0.00	0.50	0.45	0.32	0.34	0.34
PROCESSED MEAT	0.45	0.37	0.39	0.56	0.40	0.43	0.00	0.81	0.73	0.45	0.43	0.43
FRESH POULTRY	0.34	0.28	0.30	0.02	0.21	0.18	0.00	0.34	0.31	0.25	0.26	0.26
FRESH SEAFOOD	0.29	0.46	0.41	0.53	0.15	0.21	0.49	0.33	0.34	0.35	0.33	0.33
PACKAGED MEAT	0.26	0.25	0.26	0.13	0.14	0.14	0.05	0.26	0.24	0.22	0.21	0.21
FRESH PRODUCE	0.14	0.16	0.15	0.15	0.12	0.12	0.00	0.20	0.18	0.13	0.15	0.15
PACKAGED PRODUCE	0.21	0.20	0.20	0.18	0.22	0.21	0.11	0.24	0.22	0.20	0.21	0.21
DAIRY PRODUCTS	0.16	0.21	0.20	0.13	0.23	0.22	0.00	0.46	0.41	0.14	0.25	0.22
EGGS	0.47	0.33	0.37	0.37	0.22	0.24	0.00	0.38	0.34	0.43	0.29	0.32
CEREALS, GRAINS	0.30	0.24	0.26	0.19	0.15	0.15	0.01	0.25	0.22	0.26	0.21	0.22
BAKERY PRODUCTS	0.49	0.79	0.71	0.68	0.73	0.72	1.05	0.91	0.93	0.56	0.78	0.74
DINNER MIXTURES	0.17	0.11	0.13	0.05	0.09	0.08	0.00	0.18	0.16	0.14	0.11	0.11
OTHER FOODS	0.42	0.39	0.40	0.38	0.34	0.35	0.23	0.31	0.30	0.40	0.36	0.37
Number of stores	32	82	114	11	64	75	2	18	20	45	164	209

211

# Average Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Group and Amount of		Urban			Nixed			Rural			Total		
Variety in Package Types	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	
	0.07	0.09	0.09	0.07	0.04	0.05	0.01	0.12	0.09	0.06	0.07	0.07	
PROCESSED NEAT	1.12	1.26	1.24	1.01	1.22	1.18	1.06	1.26	1.21	1.06	1.24	1.21	
PROLESSED REAT	0.05	0.03	0.03	0.01	0.01	0.01	0.00	0.05	0.03	0.02	0.02	0.02	
FRESH POULTRT	0.00	0.02	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	
FRESH SEAFOOD	0.65	0.55	0.57	0.51	0.55	0.54	0.51	0.61	0.58	0.57	0.56	0.56	
PACKAGED MEAT	0.30	0.41	0.40	0.27	0.27	0.27	0.23	0.32	0.30	0.31	0.34	0.33	
FRESH PRODUCE	1.01	0.00	0.00	0.87	0.97	0.96	0.80	1.11	1.03	0.91	1.00	0.98	
PACKAGED PRODUCE	0.75	1 13	1.07	0.71	1 1.07	1.01	0.76	1.09	1.01	0.74	1.10	1.04	
DAIRY PRODUCTS	0.75	0.02	0.01	0.86	0.92	0.91	0.78	0.93	0.89	0.85	0.92	0.91	
EGGS	1 75	1 42	1 41	0.98	1.25	1.20	0.72	1.31	1.16	1.08	1.33	1.29	
CEREALS, GRAINS	1.35	1.76	1.68	1.58	1.72	1.70	1.34	1.74	1.64	1.45	1.73	1.68	
BAKERY PRODUCTS	1.57	0.05	0.85	0.57	0.72	0.69	0.49	0.88	0.78	0.67	0.80	0.78	
DINNER MIXTURES	0.85	1.77	1 74	1.45	1.44	1.61	1.23	1.68	1.57	1.49	1.71	1.67	
OTHER FOODS Number of stores	1.00	244	288	46	227	273	23	66	89	113	537	650	

Grocery	//Gas	Out	lets	
---------	-------	-----	------	--

Food Group and Amount of		Urben			Mixed			Rural			Total		
Variety in Package Types	High- poverty	Other	Total	High- poverty	Other	Total	Nigh- poverty	Other	Total	High- poverty	Other	Total	
FRESH MEAT PROCESSED MEAT	0.05	0.02	0.02	0.07	0.06	0.06 1.28 0.01	0.14 1.63 0.01	0.09 1.28 0.02	0.10 1.35 0.02	0.10 1.34 0.02	0.06 1.35 0.01	0.07 1.35 0.01	
FRESH POULTRY FRESH SEAFOOD PACKAGED MEAT	0.00	0.00	0.00	0.00	0.00 0.63 0.36	0.00 0.61 0.33	0.00 0.63 0.32	0.00 0.61 0.37	0.00 0.61 0.36	0.00 0.56 0.21	0.00 0.61 0.39	0.00 0.60 0.36	
FRESH PRODUCE PACKAGED PRODUCE DAIRY PRODUCTS	0.76	1.02	0.97	1.00 0.78 0.91	1.10 1.26 0.97	1.08 1.20 0.96	1.05 1.03 1.00	1.08 1.09 1.03	1.08 1.08 1.02	0.95 0.83 0.90	1.07 1.23 0.96	1.05 1.16 0.95	
EGGS CEREALS, GRAINS BAKERY PRODUCTS	0.95	1.53	1.43	1.27	1.43	1.41 1.92 0.88	1.33 1.65 0.74	1.43 1.82 0.87	1.41 1.78 0.84	1.21 1.69 0.59	1.46 1.86 0.98	1.42 1.84 0.91	
DINNER MIXTURES OTHER FOODS Number of stores	1.37	1.82	1.74	1.56	1.80 78	1.77 90	1.64	1.73 78	1.71 97	1.54	1.78 211	1.74 254	

212

# Average Level of Variety in Package Types by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Amount of		Urban		1	Mixed		1	Rural		1	Total	
Variety in Package Types	High- poverty	Other	Total									
FRESH MEAT	0.05	0.10	0.08	0.16	0.14	0.14	0.05	0.23	0.16	0.07	0.14	0.12
PROCESSED MEAT	0.20	0.39	0.33	0.56	0.42	0.45	0.80	0.84	0.83	0.42	0.48	0.46
FRESH POULTRY	0.02	0.07	0.05	0.18	0.13	0.14	0.00	0.10	0.06	0.05	0.10	0.09
FRESH SEAFOOD	0.02	0.03	0.03	0.22	0.05	0.08	0.00	0.00	0.00	0.06	0.04	0.04
PACKAGED MEAT	0.18	0.24	0.22	0.33	0.33	0.33	0.43	0.49	0.47	0.27	0.32	0.31
FRESH PRODUCE	0.58	0.36	0.43	0.60	0.48	0.50	0.52	0.60	0.57	0.57	0.44	0.48
PACKAGED PRODUCE	0.29	0.42	0.38	0.53	0.54	0.54	0.65	0.97	0.85	0.43	0.56	0.52
DAIRY PRODUCTS	0.27	0.47	0.40	0.32	0.56	0.52	0.55	1.03	0.86	0.35	0.60	0.53
EGGS	0.45	0.49	0.48	0.48	0.61	0.59	0.63	0.88	0.79	0.50	0.60	0.57
CEREALS, GRAINS	0.42	0.59	0.54	0.55	0.73	0.69	0.86	1.16	1.05	0.55	0.74	0.69
BAKERY PRODUCTS	0.47	1.03	0.85	0.83	0.85	0.85	0.88	1.40	1.21	0.65	1.02	0.91
DINNER MIXTURES	0.14	0.30	0.25	0.40	0.40	0.40	0.49	0.72	0.64	0.28	0.41	0.37
OTHER FOODS	0.56	0.79	0.72	0.75	0.85	0.83	1.00	1.45	1.29	0.71	0.92	0.86
Number of stores	42	85	127	19	82	101	19	33	52	80	200	280

### Other Stores

All Store Types

Food Group and Amount of Variety in Package Types	Urban			Mixed			Rural			Total		
	High- poverty	Other	Total									
FRESH MEAT	0.25	0.41	0.37	0.31	0.43	0.41	0.23	0.50	0.44	0.26	0.43	0.40
PROCESSED MEAT	1.01	1.32	1.25	1.15	1.38	1.34	1.31	1.55	1.50	1.12	1.38	1.33
FRESH POULTRY	0.28	0.50	0.45	0.31	0.51	0.48	0.17	0.46	0.40	0.26	0.50	0.45
FRESH SEAFOOD	0.10	0.34	0.29	0.14	0.23	0.22	0.04	0.14	0.12	0.10	0.26	0.23
PACKAGED MEAT	0.59	0.81	0.76	0.68	0.85	0.82	0.67	0.92	0.86	0.63	0.84	0.80
FRESH PRODUCE	0.49	0.70	0.65	0.53	0.69	0.66	0.50	0.75	0.69	0.51	0.70	0.66
PACKAGED PRODUCE	0.85	1.18	1.10	1.03	1.25	1.22	1.03	1.41	1.32	0.94	1.25	1.18
DAIRY PRODUCTS	0.59	1.14	1.02	0.80	1.21	1.14	0.90	1.32	1.23	0.71	1.20	1.10
EGGS	0.82	1.05	1.00	0.88	1.10	1.06	0.90	1.15	1.09	0.85	1.09	1.04
CEREALS, GRAINS	1.19	1.51	1.43	1.19	1.48	1.43	1.21	1.74	1.62	1.19	1.54	1.47
BAKERY PRODUCTS	1.24	1.71	1.60	1.52	1.78	1.74	1.45	1.95	1.84	1.37	1.78	1.69
DINNER MIXTURES	0.66	1.05	0.96	0.73	1.06	1.01	0.79	1.23	1.13	0.71	1.09	1.01
OTHER FOODS	1.36	1.72	1.64	1.45	1.73	1.68	1.47	1.92	1.82	1.41	1.76	1.69
Number of stores	245	819	1064	145	694	839	111	364	475	501	1877	2378

213

.

### Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Group and Level of Variety in Assortment	Urban			Mixed			Rural .			Total		
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	54.61 45.39 0 0	82.34 12.44 3.82 1.40	80.85 14.20 3.62 1.33	86.06 13.94 0 0	78.65 12.67 5.74 2.94	79.31 12.79 5.23 2.68	66.67 33.33 0 0	64.68 19.53 12.33 3.47	64.86 20.84 11.16 3.14	72.04 27.96 0	78.17 13.62 5.88 2.32	77.72 14.69 5.45 2.15
PROCESSED MEAT Sufficient Minimal No variety Not Available	66.67 33.33 0 0	90.69 7.20 1.43 0.68	89.41 8.60 1.35 0.65	100.00 0 0	89.99 7.21 2.80 0	90.88 6.57 2.55 0	83.56 16.44 0 0	78.70 14.21 5.31 1.77	79.16 14.43 4.81 1.60	85.97 14.03 0	88.57 8.29 2.56 0.58	88.38 8.71 2.37 0.54
FRESH POULTRY Sufficient Minimal No variety Not Available	20.43 79.57 0 0	34.16 61.22 0.71 3.91	33.42 62.20 0.68 3.70	21.87 78.13 0	21.11 69.46 0.76 8.67	21.18 70.23 0.69 7.90	0 100.00 0 0	11.29 71.15 1.77 15.80	10.22 73.88 1.60 14.30	16.99 83.01 0	25.53 65.97 0.89 7.61	24.89 67.23 0.83 7.04
FRESH SEAFOOD Sufficient Minimal No variety Not Available	33.05 0 66.95	75.63 4.35 3.12 16.89	73.36 4.12 2.95 19.57	0 35.72 0 64.28	37.99 13.64 15.01 33.35	34.61 15.61 13.68 36.10	16.44 0 33.33 50.23	14.83 3.49 14.71 66.97	14.98 3.16 16.48 65.38	13.93 17.03 6.74 62.30	51.53 7.85 9.56 31.06	48.74 8.53 9.35 33.37
PACKAGED MEAT Sufficient Minimal No variety Not Available	12.20 76.60 11.21 0	28.28 61.06 10.66 0	27.42 61.89 10.69 0	22.25 77.75 0 0	32.84 58.49 8.67 0	31.89 60.20 7.90 0	0 100.00 0 0	20.40 55.09 24.51 0	18.47 59.35 22.18 0	14.53 81.88 3.60 0	28.84 59.13 12.02 0	27.78 60.82 11.40 0
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 55.46 44.54 0	13.36 81.33 4.73 0.58	12.64 79.95 6.86 0.55	0 100.00 0 0	5.19 84.72 7.95 2.14	4.73 86.07 7.25 1.95	0 66.22 33.78 0	0 80.54 14.14 5.31	0 79.18 16.01 4.81	0 78.87 21.13 0	8.10 82.53 7.44 1.92	7.50 82.26 8.46 1.78
PACKAGED PRODUCE Sufficient Minimal No variety Not Available	44.40 44.40 11.21 0	72.47 72.77 4.75 0	70.97 23.93 5.10 0	57.59 42.41 0 0	69.63 23.20 7.17 0	68.56 24.91 6.53 0	33.33 66.67 0	47.79 38.18 14.03 0	46.42 40.88 12.70 0	48.45 47.95 3.60 0	67.55 25.32 7.13 0	66.13 27.00 6.87 0
Number of stores	9	154	163	14	138	152	6	55	61	29	347	376

.

49

214
## Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Level of Variety in		Urban			Mixed			Rural			Total	
or variety in Assortment	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Ninimal No variety Not Available	8.06 38.96 45.11 7.87	13.52 34.94 27.04 24.50	12.12 35.97 31.67 20.24	11.21 66.37 11.06 11.36	28.13 38.16 25.95 7.76	25.07 43.25 23.26 8.41	33.78 66.22 0 0	40.13 44.30 11.58 3.99	39.48 46.56 10.39 3.58	14.38 53.18 25.12 7.33	28.40 39.59 20.67 11.34	25.91 42.01 21.46 10.63
PROCESSED MEAT Sufficient Minimal No variety Not Available	24.09 60.08 0 15.83	21.59 51.11 11.11 16.20	22.23 53.41 8.26 16.11	21.98 66.96 11.06 0	35.89 56.12 7.99 0	33.38 58.08 8.54 0	83.33 16.67 0 0	57.95 37.88 4.17 0	60.57 35.69 3.74 0	35.71 53.23 3.46 7.60	40.19 47.48 7.44 4.89	39.39 48.51 6.73 5.38
FRESH POULTRY Sufficient Minimal No variety Not Available	8.06 22.65 31.09 38.20	2.84 35.31 23.77 38.08	4.18 32.06 25.65 38.11	0 43.51 22.71 33.78	2.53 53.39 17.99 26.08	2.08 51.61 18.84 27.47	0 100.00 0 0	1.97 54.17 28.14 15.72	1.77 58.90 25.24 14.10	3.87 45.21 22.03 28.89	2.41 48.23 23.70 25.66	2.67 47.69 23.40 26.24
FRESH SEAFOOD Sufficient Minimal No variety Not Available	8.25 0 23.61 68.14	5.65 0 2.71 91.64	6.32 0 8.06 85.62	0 0 11.50 88.50	0 2.34 2.57 95.10	0 1.92 4.18 93.90	0 0 0 100.00	12.19 5.90 2.04 79.86	10.94 5.30 1.83 81.93	3.96 0 14.93 81.11	6.47 3.03 2.41 88.10	6.02 2.49 4.64 86.85
PACKAGED MEAT Sufficient tinimel to variety tot Available	0 38.10 61.90 0	2.84 18.55 76.10 2.51	2.11 23.56 72.46 1.87	0 44.25 55.75 0	5.13 33.19 61.68 0	4.21 35.19 60.61 0	0 100.00 0 0	6.01 55.93 38.06 0	5.39 60.48 34.14 0	0 52.86 47.14 0	4.78 37.65 56.81 0.76	3.93 40.36 55.09 0.62
RESH PRODUCE Sufficient Minimal No variety Not Available	0 8.06 77.45 14.49	0 32.66 62.02 5.32	0 26.36 65.97 7.67	0 22.71 65.93 11.36	0 40.76 59.24 0	0 37.50 60.45 2.05	0 67.11 32.89 0	0 62.07 37.93 0	0 62.59 37.41 0	0 24.88 64.61 10.51	0 46.64 51.76 1.61	0 42.76 54.05 3.19
PACKAGED PRODUCE Sufficient Sinimal So variety Sot Available	0 61.80 38.20 0	0 45.42 54.58 0	0 49.62 50.38 0	0 66.37 33.63 0	15.46 61.22 23.32 0	12.67 62.15 25.18 0	0 100.00 0 0	15.70 78.45 5.85 0	14.08 80.67 5.25 0	0 71.15 28.85 0	10.88 63.18 25.94 0	8.94 64.60 26.46 0
lumber of stores	13	37	50	9	39	48	6	50	56	28	126	154

Large Grocery Stores

215

## Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Small Grocery Stores

Food Group and Level of Variety in		Urben			Mixed			Rural			Total	
of Variety in Assortment	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Ninimel No variety Not Available	0 3.34 56.45 40.21	1.83 3.59 41.57 53.01	1.17 3.50 46.92 48.41	0 0 32.24 67.76	3.01 4.52 33.25 59.22	2.01 3.01 32.91 62.07	0 0 55.54 44.46	1.61 12.74 36.79 48.86	1.04 8.19 43.48 47.29	0 1.95 51.35 46.70	2.04 5.71 38.73 53.51	1.32 4.38 43.18 51.11
PROCESSED MEAT Sufficient Minimal No variety Not Available	0.98 56.95 25.90 16.17	1.80 40.91 35.09 22.21	1.51 46.67 31.79 20.04	0 35.45 41.08 23.47	6.14 38.94 33.68 21.24	4.09 37.78 36.15 21.98	0 41.60 41.93 16.47	7.91 55.80 21.94 14.35	5.08 50.73 29.08 15.10	0.57 49.32 32.40 17.71	4.04 43.59 32.02 20.34	2.82 45.62 32.15 19.42
FRESH POULTRY Sufficient Minimal No variety Not Available	0 9.48 31.43 59.10	0 5.42 20.74 73.84	0 6.88 24.58 68.54	0 2.86 2.86 94.29	0 4.58 7.61 87.82	0 4.00 6.02 89.97	0 0 5.50 94.50	0 4.67 16.27 79.07	0 3.00 12.42 84.58	0 6.11 20.11 73.78	0 5.08 16.89 78.03	0 5.44 18.03 76.53
FRESH SEAFOOD Sufficient Hinimal No variety Not Available	1.07 1.07 0.98 96.88	0.65 0.62 1.19 97.54	0.80 0.78 1.11 97.30	2.86 0 97.14	0 0 100.00	0.95 0 99.05	0 0 100.00	1.49 0 1.61 96.90	0.96 0 1.04 98.01	1.21 0.63 0.57 97.60	0.68 0.35 1.01 97.95	0.87 0.45 0.86 97.83
PACKAGED MEAT Sufficient Hinimal No variety Not Available	0 1.95 92.76 5.28	0 0.62 94.98 4.40	0 1.10 94.18 4.71	0 0 100.00 0	0 1.47 92.31 6.22	0 0.98 94.88 4.15	0 0 100.00 0	0 11.25 87.14 1.61	0 7.23 91.73 1.04	0 1.14 95.77 3.08	0 3.04 92.75 4.22	0 2.37 93.81 3.82
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 1.14 78.62 20.24	0 4.40 80.66 14.93	0 3.23 79.93 16.84	0 0 65.18 34.82	0 1.43 78.90 19.68	0 0.95 74.33 24.72	0 0 78.18 21.82	0 4.83 81.54 13.63	0 3.11 80.34 16.55	0 0.67 75.80 23.53	0 3.84 80.46 15.71	0 2.72 78.81 18.47
PACKAGED PRODUCE Sufficient Ninimal No variety Not Available	0 10.78 89.22 0	0 7.93 90.89 1.19	0 8.95 90.29 0.76	0 2.86 97.14 0	1.47 12.09 84.94 1.51	0.98 9.01 89.01 1.00	0 2.68 97.32 0	1.61 28.80 69.59 0	1.04 19.47 79.49 0	0 7.45 92.55 0	0.66 13.22 85.11 1.01	0.43 11.18 87.74 0.65
Number of stores	93	162	255	34	66	100	36	63	99	163	291	454

.

#### Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Level Urben Mixed Rural Total of Variety in Assortment High-Nigh-High-High-Other Total poverty poverty Other Total poverty Other Total poverty Other Total FRESH MEAT Sufficient 9.93 7.21 9.24 9.55 0 9.51 0 10.95 9.91 2.23 9.90 8.28 Minimal 26.38 13.93 17.33 9.12 15.54 14.62 0 22.12 20.01 21.08 15.44 16.62 No variety 21.84 7.44 11.39 16.79 9.60 12.75 12.30 0 15.19 17.96 10.50 12.07 Not Available 51.78 68.70 64.07 72.03 62.16 63.58 100.00 50.14 54.89 58.73 64.17 63.02 PROCESSED MEAT Sufficient 0 3.72 2.70 0 3.17 2.72 0 9.91 3.39 10.95 0 4.30 0 Minimal 23.06 16.18 18.07 18.49 18.81 18.76 22.12 20.01 20.97 17.84 18.50 No variety 18.93 5.05 8.85 27.49 12.67 14.79 0 16.86 15.25 20.19 9.26 11.56 Not Available 58.01 75.05 70.38 54.02 65.36 63.73 100.00 50.07 \$4.83 58.85 68.60 66.55 FRESH POULTRY Sufficient 3.40 6.16 5.41 0 1.59 1.36 0 0 0 2.43 3.73 3.46 Minimal 15.47 10.83 0 14.99 26.25 11.41 0 12.65 16.57 18.80 12.45 13.78 8.07 0 No variety 15.49 11.23 12.39 9.24 7.87 10.95 9.91 13.32 9.90 10.62 Not Available 54.85 71.20 66.73 90.76 77.90 79.74 100.00 72.48 75.10 65.45 73.92 72.14 FRESH SEAFOOD Sufficient 12.78 21.57 49.32 17.30 17.36 24.88 26.29 9.11 11.57 10.95 14.61 17.61 Minimal 6.84 3.84 4.66 0 0 4.89 1.95 2.57 No variety 3.24 6.22 5.41 9.12 0 1.31 0 0 4.52 3.15 3.44 0 Not Available 77.14 65.05 68.37 64.59 90.89 87.12 50.68 89.05 85.39 72.98 77.60 76.63 PACKAGED MEAT 0.58 0.46 Sufficient 0 0 0 0 0 0 5.33 4.83 0 0 2.43 Minimal 3.40 3.78 3.68 0 0 0 0 0 0 1.92 2.02 45.71 47.70 45.68 45.61 49.32 27.67 29.73 45.73 45.13 45.25 48 14 45.14 No variety 54.32 52.27 Not Available 50.89 47.71 48.63 54.86 54.39 50.68 67.00 65.44 51.84 52.38 FRESH PRODUCE 0 Sufficient 0 C 0 0 0 0 0 0 0 0 0 2.51 1.98 4.83 Minimal 3.81 2.77 0 0 0 0 5.33 0 0 29.65 27.95 25.29 28.00 28.2. 28.19 29.85 26.95 27.75 27.49 30.01 0 No variety 66.71 69.99 70.35 69.88 72.00 69.25 69.83 Not Available 70.15 69.23 69.48 72.51 100.00 PACKAGED PRODUCE 4.83 0.46 0 0 0 0 0 5.33 0 0.58 Sufficient 0 0 3.40 1.25 1.84 0 0 0 0 0 2.43 0.63 1.01 Minimal 0 54.26 64.27 62.84 100.00 22.40 29.79 52.13 58.54 57.19 58.26 48.54 61.93 No variety 65.38 45.44 40.25 45.74 35.73 37.16 72.26 41.34 Not Available 48.06 36.82 39.90 0 20 44 163 207 75 2 18 31 81 112 11 64 Number of stores

Specialty Stores

217

## Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Group and Level of Variety in		Urben			Nixed			Rural			Total	
Assortment	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Hinimal No variety Not Available	0 0 38.54 61.46	0 1.22 42.66 56.12	0 1.04 42.05 56.91	0 0 41.29 58.71	0 0.45 33.26 66.29	0 0.37 34.58 65.05	0 0 21.47 78.53	1.58 1.60 46.00 50.2	1.18 1.20 40.22 57.40	0 0 36.25 63.75	0.19 0.94 39.22 59.65	0.16 0.78 38.71 60.34
PROCESSED MEAT Sufficient Minimal No variety Not Available	0 55.34 27.00 17.66	2.92 54.52 30.26 12.31	2.48 54.64 29.77 13.10	0 43.48 34.89 21.63	0.90 55.85 32.58 10.67	0.75 53.82 32.96 12.47	0 39.03 52.47 8.49	1.58 54.90 34.75 8.77	1.18 50.87 39.25 8.70	0 47.33 35.24 17.43	1.92 55.12 31.76 11.20	1.59 53.80 32.35 12.26
FRESH POULTRY Sufficient Minimal No variety Not Available	0 4.58 2.38 93.04	0 0.40 10.35 89.25	0 1.03 9.16 89.82	0 0 2.10 97.90	0 0.47 1.36 98.17	0 0.39 1.48 98.13	0 0 100.00	0 1.58 1.60 96.81	0 1.18 1.20 97.62	0 1.83 1.80 96.38	0 0.57 5.56 93.87	0 0.78 4.93 94.29
FRESH SEAFOOD Sufficient Hinimal No variety Not Available	0 0 100.00	0.49 0.40 0.81 98.38	0.34 0.34 0.69 98.62	2.10 0 97.90	0 0 100.00	0.35 0 99.65	0 0 100.00	0 0 100.00	0 0 100.00	0.85 0 99.15	0.19 0.19 0.38 99.25	0.30 0.15 0.31 99.23
PACKAGED MEAT Sufficient Minimal No variety Not Available	0 0 97.91 2.09	0 0 97.22 2.78	0 0 97.32 2.68	0 0 97.90 2.10	0 0.88 96.02 3.09	0 0.74 96.33 2.93	0 0 100.00 0	0 1.58 96.99 1.43	0 1.18 97.75 1.06	0 0 98.32 1.68	0 0.56 96.69 2.75	0 0.46 96.97 2.57
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 0 76.16 23.84	0 1.27 79.44 19.29	0 1.08 78.95 19.97	0 0 67.82 32.18	0 0 69.02 30.98	0 0 68.82 31.18	0 0 73.82 26.18	0 1.58 71.63 26.79	0 1.18 72.19 26.63	0 0 72.35 27.65	0 0.78 74.17 25.05	0 0.65 73.86 25.49
PACKAGED PRODUCE Sufficient Minimal No variety Not Available	0 7.11 92.89 0	0 3.80 95.84 0.37	0 4.29 95.40 0.31	0 2.22 97.78 0	0 3.15 96.85 0	0 3.00 97.00 0	0 0 100.00 0	0 12.25 87.75 0	0 9.14 90.86 0	0 3.73 96.27 0	0 4.54 95.29 0.17	0 4.40 95.46 0.14
Number of stores	44	244	288	46	227	273	23	66	89	113	537	650

218

#### Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Level Urban Mixed Rural Total of Variety in Assortment High-High-Nigh-Highpoverty Other Total Other Total Other poverty poverty Total poverty Other Total FRESH MEAT Sufficient 0 0 0 0 0 0 0 0 0 0 0 0 Minimal 0 0 5.31 1.34 0 0 0 2.10 2.33 0.48 0.79 0 No variety 18.05 57.76 24.76 66.74 39.91 43.40 58.29 39.18 60.51 42.86 33.72 38.12 Not Available 42.24 81.95 75.24 33.26 60.09 56.60 36.40 59.49 55.03 37.16 65.80 61.10 PROCESSED MEAT Sufficient 5.81 4.83 0 0 0 0 0 0 0 0 1.58 1.32 Minimal 67.67 63.30 34.81 60.67 57.31 59.89 41.80 74.15 62.64 54.04 62.29 60.93 No variety Not Available 41.46 19.47 23.18 49.22 32.96 35.07 20.68 35.16 32.37 34.51 30.10 30.82 16.74 7.05 8.69 15.96 6.37 7.62 5.17 4.95 4.99 11.44 6.04 6.93 FRESH POULTRY Sufficient 0 0 0 0 0 0 0 0 0 0 0 0 Minimal 0 0 0 0 0 0 0 0 0 0 0 0 8.09 1.39 5.31 No variety 1.28 2.16 2.56 3.09 4.60 1.92 0 0 0 98.72 Not Available 100.00 100.00 100.00 91.91 97.84 94.69 97.44 96.91 95.40 98.61 98.08 FRESH SEAFOOD Sufficient 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 Minimal 0 0 0 0 0 0 0 0 0 0 0 No variety 0 0 0 0 n 0 0 100.00 Not Available 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 PACKAGED MEAT Sufficient 0 0 0 0 0 Ô 0 0 0 0 0 0 2.54 0.92 0.77 Minisal 0 2.05 0 0 0 0 0 0 0 No variety Not Available 100.00 95.02 97.54 91.24 98.15 96.99 100.00 100.00 100.00 95.98 97.70 97.68 2.44 1.97 2.46 1.38 1.56 3.01 8.76 1.85 FRESH PRODUCE Sufficient 0 0 0 0 0 0 0 0 0 0 0 0 0.44 Minimal 1.94 1.61 0 0 0 0 0 0 0.53 0 0 No variety 17.85 81.30 70.58 51.11 82.30 78.24 69.26 74.75 73.69 49.75 79.30 74.45 25.11 Not Available 16.76 27.81 48.89 17.70 21.76 30.74 25.25 26.31 50.25 20.17 82.15 PACKAGED PRODUCE Sufficient 0 0 0 0 0 0 0 0 0 0 0 0 2.96 4.11 6.05 5.05 Minimal 3.56 0 8.81 7.66 0 5.10 0 0 97.04 100.00 91.19 92.34 100.00 94.90 95.89 100.00 93.95 94.95 No variety 100.00 96.44 0 0 Not Available 0 0 0 0 0 0 43 254 12 55 67 12 78 90 19 78 97 211 Number of stores

#### Grocery/Gas Outlets

219

## Frequency Distribution of Retailers by Level of Variety in Assortet by Food Group, Degree of Urbanization, Poverty Level and Store Type

Other Stores

Food Group and Level of Variety in		Urban			Mixed			Rural			Total	
Assortment	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	0 0 12.51 87.49	1.19 1.18 17.70 79.93	0.81 0.80 16.04 82.35	5.80 0 22.12 72.08	5.06 1.27 11.08 82.59	5.19 1.04 13.04 80.72	0 0 36.69 63.31	3.12 3.12 36.89 56.87	2.00 2.00 36.82 59.18	1.31 0 20.35 78.34	3.05 1.53 18.14 77.28	2.57 1.10 18.75 77.57
PROCESSED MEAT Sufficient Minimal No variety Not Available	0 9.95 7.67 82.38	1.19 14.14 15.26 69.41	0.81 12.80 12.83 73.57	5.80 22.48 11.17 60.54	6.33 12.59 8.50 72.58	6.73 14.35 8.97 70.44	0 31.87 25.99 42.14	3.16 33.41 26.78 36.65	2.03 32.86 26.50 38.62	1.31 17.93 12.76 68.00	3.57 16.62 14.40 65.40	2.94 16.93 13.95 66.12
FRESH POULTRY Sufficient Minimal No variety Not Available	0 2.53 0 97.47	0 3.56 8.49 87.95	0 3.23 5.77 91.00	5.80 0 5.58 88.61	2.52 3.79 2.49 91.20	3.10 3.12 3.04 90.74	0 0 100.00	0 0 18.56 81.44	0 0 11.92 88.08	1.31 1.36 1.26 96.06	1.01 3.08 7.70 88.21	1.09 2.60 5.92 90.38
FRESH SEAFOOD Sufficient Minimal No variety Not Available	2.43 0 97.57	1.18 1.15 1.15 96.53	1.58 0.78 0.78 96.86	5.80 0 5.36 88.83	1.25 1.27 1.24 96.24	2.06 1.04 1.97 94.93	0 0 100.00	0 0 100.00	0 0 100.00	2.63 0 1.21 96.16	1.02 1.01 1.00 96.97	1.46 0.73 1.06 96.75
PACKAGED MEAT Sufficient Minimal No variety Not Available	0 2.65 36.94 60.41	0 1.1% 50.43 48.38	0 1.66 46.10 52.24	0 5.80 50.04 44.16	1.24 2.52 46.08 50.16	1.02 3.10 46.78 49.09	0 0 68.13 31.87	0 0 81.71 18.29	0 0 76.85 23.15	0 2.74 47.22 50.04	0.50 1.53 53.72 44.25	0.36 1.87 51.92 45.85
FRESH PRODUCE Sufficient Minimal No variety Not Available	0 29.39 46.24 24.37	0 10.68 53.97 35.34	0 16.68 51.50 31.83	0 16.68 66.94 16.39	1.27 14.91 43.24 40.58	1.04 15.22 47.45 36.29	0 0 74.22 25.78	0 9.72 72.99 17.30	0 6.24 73.43 20.33	0 19.62 57.48 22.89	0.51 12.22 52.73 34.54	0.37 14.27 54.05 31.31
PACKAGED PRODUCE Sufficient Minimal No variety Not Available	0 2.46 56.69 40.85	0 2.30 77.91 19.79	0 2.35 71.11 26.54	5.80 0 66.94 27.26	3.76 7.55 64.32 24.37	4.12 6.21 64.78 24.89	0 0 73.44 26.56	0 12.52 72.47 15.01	0 8.04 72.82 19.14	1.31 1.33 62.93 34.42	1.51 6.05 71.58 20.86	1.45 4.74 69.19 24.62
Number of stores	41	85	126	18	81	99	19	33	52	78	199	277

.

#### Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

				1.01								
Food Group and Level		Urban			Mixed			Rural			Total	
Assortment	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT Sufficient Minimal No variety Not Available	2.45 8.47 38.70 50.38	17.60 6.52 26.68 49.20	14.20 6.96 29.38 49.46	10.45 6.20 30.56 52.80	19.03 6.87 23.61 50.50	17.59 6.75 24.78 50.88	5.41 6.30 38.72 49.57	16.86 13.37 30.82 38.96	14.24 11.75 32.63 41.39	5.35 7.35 36.40 50.89	17.98 7.94 26.34 47.74	15.38 7.82 28.41 48.39
PROCESSED MEAT Sufficient Minimal No variety Not Available	4.13 42.93 20.49 32.45	20.18 35.63 20.13 24.06	16.58 37.27 20.21 25.94	11.76 33.58 29.14 25.52	21.88 36.63 20.73 20.76	20.18 36.12 22.14 21.56	9.02 41.51 32.50 16.98	22.58 43.94 22.22 11.25	19.48 43.39 24.57 12.56	7.35 39.98 25.53 27.15	21.25 37.56 20.74 20.44	18.39 38.06 21.73 21.82
FRESH POULTRY Sufficient Minimal No variety Not Available	1.63 12.43 16.18 69.76	7.18 15.85 10.41 66.57	5.93 15.08 11.71 67.28	2.84 10.94 4.85 81.37	4.79 19.08 3.51 72.62	4.46 17.71 3.73 74.09	0 10.80 2.69 86.50	1.99 20.34 10.11 67.56	1.53 18.16 8.42 71.89	1.62 11.66 10.06 76.67	5.33 17.87 7.84 68.96	4.57 16.59 8.30 70.54
FRESH SEAFOOD Sufficient Minimal No variety Not Available	4.13 1.29 2.07 92.50	17.35 1.56 1.92 79.17	14.38 1.50 1.96 82.16	4.09 3.45 2.09 90.36	8.55 3.00 3.28 85.17	7.81 3.07 3.08 86.04	1.76 0 1.79 96.45	4.77 1.36 2.80 91.07	4.08 1.05 2.57 92.30	3.61 1.62 2.02 92.75	11.77 2.05 2.58 83.59	10.10 1.96 2.47 85.48
PACKAGED MEAT Sufficient finimal lo variety lot Available	0.45 6.52 73.43 19.60	5.46 12.98 69.86 11.70	4.33 11.53 70.67 13.48	2.15 11.00 76.42 10.43	6.97 14.27 66.26 12.50	6.17 13.72 67.96 12.15	0 10.80 82.85 6.34	4.21 18.99 70.70 6.09	3.25 17.12 73.48 6.15	0.83 8.72 76.31 14.14	5.78 14.58 68.71 10.93	4.76 13.37 70.27 11.59
RESH PROCUCE Sufficient Ninimal Io variety Iot Available	0 7.89 62.24 29.87	2.52 19.69 57.09 20.71	1.95 17.04 58.24 22.77	0 13.17 55.93 30.90	1.18 21.08 52.10 25.64	0.98 19.75 52.74 26.52	0 7.20 68.83 23.96	0 23.22 58.47 18.31	0 19.55 60.85 19.60	0 9.23 61.88 28.89	1.56 20.86 55.53 22.05	1.24 18.47 56.84 23.46
ACKAGED PRODUCE Sufficient linimal lo variety lot Available	1.63 11.26 74.00 13.11	13.66 9.67 70.62 6.05	10.96 10.03 71.38 7.64	6.29 9.63 77.15 6.93	15.32 12.17 66.21 6.30	13.81 11.74 68.04 6.41	1.79 9.89 83.79 4.53	10.01 26.24 58.74 5.01	8.13 22.50 64.47 4.90	2.98 10.50 77.01 9.51	13.58 13.70 66.77 5.94	11.40 13.05 68.88 6.68
umber of stores	243	818	1061	144	693	837	111	363	474	498	1874	2372

All Store Types

221

## Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Group and Level of Variety in		Urban			Mixed			Rural			Total	
Assortment	High- poverty	Other	Total	High- poverty	Other	Total	Nigh- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Hinimal No variety Not Available	0 68.37 31.63 0	0 91.70 8.30 0	0 90.45 9.55 0	0 100.00 0 0	0 94.32 5.68 0	0 94.83 5.17 0	0 83.11 16.89 0	0 82.43 17.57 0	0 82.50 17.50 0	0 86.43 13.57 0	0 91.29 8.71 0	0 90.93 9.07 0
EGGS Sufficient Ninimal No variety Not Available	12.05 44.54 43.40 0	46.54 32.99 20.47 0	44.69 33.61 21.70 0	22.06 42.31 35.63 0	40.18 32.61 27.20 0	38.57 33.47 27.95 0	0 33.33 66.67 0	37.38 25.41 37.21 0	33.83 26.16 40.01 0	14.39 41.21 44.40 0	42.64 31.67 25.69 0	40.55 32.38 27.07 0
CEREALS, GRAINS Sufficient Minimal No variety Not Available	100.00 0 0	94.61 2.64 2.75 0	94.90 2.50 2.60 0	100.00 0 0	90.59 5.18 4.23 0	91.43 4.72 3.86 0	100.00 0 0	78.87 14.12 7.01 0	80.87 12.78 6.35 0	100.00 0 0	90.61 5.40 3.99 0	91.30 5.00 3.69 0
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	100.00 0 0	93.98 3.28 2.06 0.68	94.30 3.10 1.95 0.65	100.00 0 0	92.83 5.07 2.10 0	93.47 4.62 1.91 0	100.00 0 0	84.13 14.10 1.77 0	85.64 12.76 1.60 0	100.00 0 0	92.01 5.65 2.03 0.31	92.60 5.23 1.88 0.29
DINNER MIXTURES Sufficient Minimal No variety Not Available	56.31 43.69 0	91.40 4.55 4.04 0	89.53 6.65 3.82 0	92.65 7.35 0 0	86.96 8.10 4.93 0	87.47 8.04 4.49 0	100.00 0 0	63.99 25.38 10.63 0	67.41 22.97 9.62 0	82.47 17.53 0 0	85.44 9.16 5.41 0	85.22 9.78 5.01 0
DTHER FOODS Sufficient Minimal No variety Not Available	88.79 11.21 0 0	94.03 4.57 1.40 0	93.75 4.93 1.32 0	100.00 0 0	89.91 9.39 0.70 0	90.81 8.56 0.64 0	83.11 16.89 0 0	75.14 21.39 3.47 0	75.89 20.97 3.14 0	92.99 7.01 0 0	89.50 9.05 1.44 0	89.76 8.90 1.34 0
Number of stores	. 9	154	163	14	138	152	6	55	61	29	347	376

222

# Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Level of Variety in		Urban			Mixed			Rural			Total	
Assortment	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 15.64 68.52 15.83	0 15.97 75.90 8.13	0 15.88 74.01 10.11	0 44.25 55.75 0	0 51.12 48.88 0	0 49.88 50.12 0	0 66.67 33.33 0	0 74.31 25.69 0	0 73.52 26.48 0	0 35.16 57.24 7.60	0 49.56 47.98 2.46	0 47.00 49.63 3.37
EGGS Sufficient Minimal No variety Not Available	23.70 14.97 61.32 0	13.79 16.07 59.50 10.64	16.33 15.79 59.97 7.92	0 22.12 66.52 11.36	20.17 7.37 69.80 2.66	16.53 10.03 69.20 4.23	16.22 33.78 50.00 0	19.91 23.98 56.11 0	19.53 24.99 55.48 0	14.75 21.11 60.60 3.55	18.14 16.48 61.34 4.03	17.54 17.31 61.21 3.95
CEREALS, GRAINS Sufficient Minimal No variety Not Available	38.68 31.00 30.33 0	34.88 48.96 13.65 2.51	35.85 44.36 17.92 1.87	66.37 22.27 11.36 0	63.79 33.74 2.47 0	64.25 31.67 4.07 0	100.00 0 0	80.21 17.94 1.84 0	82.26 16.09 1.65 0	60.05 21.84 18.11 0	61.47 32.17 5.60 0.76	61.22 30.33 7.83 0.62
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	38.58 30.13 15.45 15.83	42.64 29.98 22.02 5.36	41.60 30.02 20.33 8.04	33.48 55.16 11.36 0	66.03 31.34 2.63 0	60.15 35.64 4.21 0	66.67 33.33 0 0	84.18 13.98 1.84 0	82.37 15.98 1.65 0	42.81 38.62 10.97 7.60	66.05 24.15 8.18 1.62	61.92 26.73 8.67 2.68
DINNER MIXTURES Sufficient Minimal No variety Not Available	23.32 38.48 29.94 8.25	16.20 26.61 57.19 0	18.02 29.65 50.21 2.11	21.98 55.31 22.71 0	27.93 56.45 15.62 0	26.86 56.24 16.90 0	83.33 16.67 0 0	44.43 53.73 1.84 0	48.44 49.91 1.65 0	35.35 39.22 21.47 3.96	30.83 46.38 22.79 0	31.65 45.00 22,56 0.71
DTHER FOODS Sufficient Minimal No variety Not Available	16.22 61.04 22.74 0	29.75 56.89 13.36 0	26.28 57.95 15.76 0	44.10 55.90 0	56.02 43.98 0 0	53.87 46.13 0 0	66.67 33.33 0 0	78.02 21.98 0 0	76.85 23.15 0 0	35.39 53.69 10.92 0	56.68 39.29 4.03 0	52.89 41.85 5.26 0
Number of stores	' 13	37	50	9	39	48	6	50	56	28	126	154

223

Large Grocery Stores

*

## Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, by Degree of Urbanization, Poverty Level and Store Type

Small Grocery Stores

Food Group and Level of Variety in		Urban			Mixed			Rural			Total	
Assortment	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Hinimal No variety Not Available	0 1.07 92.37 6.56	0 1.86 89.17 8.96	0 1.58 90.32 8.10	0 0 82.51 17.49	0 6.02 86.41 7.57	0 4.02 85.11 10.87	0 0 89.00 11.00	0 11.40 87.12 1.49	0 7.33 87.79 4.88	0 0.63 89.65 9.72	0 4.78 88.13 7.09	0 3.32 88.67 8.02
EGGS Sufficient Minimal No variety Not Available	0 6.54 80.48 12.98	1.75 3.19 77.97 17.09	1.12 4.39 78.87 15.62	0 0 61.89 38.11	3.01 4.56 74.32 18.11	2.01 3.04 70.18 24.78	0 2.86 86.17 10.97	1.63 9.48 82.58 6.32	1.05 7.11 83.86 7.98	0 4.43 77.93 17.64	2.00 4.81 78.13 15.06	1.30 4.68 78.06 15.97
CEREALS, GRAINS Sufficient Minimal No variety Not Available	7.98 48.36 42.63 1.03	5.04 44.26 48.81 1.89	6.10 45.73 46.59 1.58	0 29.97 67.18 2.86	4.50 44.14 48.31 3.05	3.00 39.42 54.60 2.99	0 41.82 55.39 2.79	19.34 54.15 26.51 0	12.44 49.75 36.82 1.00	4.66 43.24 50.33 1.78	7.92 46.31 44.02 1.75	6.77 45.22 46.25 1.76
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	5.63 47.28 42.76 4.32	6.87 41.92 42.77 8.44	6.43 43.84 42.77 6.96	0 43.66 50.63 5.71	7.67 52.94 37.88 1.51	5.11 49.85 42.13 2.91	0 50.26 49.74 0	22.48 44.51 31.52 1.49	14.45 46.56 38.03 0.96	3.29 47.19 45.85 3.68	10.32 44.90 39.33 5.45	7.84 45.71 41.63 4.82
DINNER MIXTURES Sufficient Minimal No variety Not Available	0 11.82 86.03 2.14	0.62 13.98 83.00 2.40	0.40 13.21 84.09 2.31	0 5.79 94.21 0	1.47 10.62 86.41 1.51	0.98 9.01 89.01 1.00	0 24.91 72.42 2.68	1.61 43.46 54.93 0	1.04 36.83 61.18 0.96	0 13.39 84.78 1.82	1.02 19.42 77.87 1.70	0.66 17.29 80.31 1.74
DTHER FOODS Sufficient Minimal No variety Not Available	1.07 68.03 30.90 0	4.97 64.34 30.08 0.61	3.57 65.67 30.37 0.39	0 44.25 55.75 0	4.58 69.78 24.13 1.51	3.05 61.27 34.67 1.00	0 69.52 30.48 0	16.12 69.74 14.14 0	10.37 69.66 19.98 0	0.63 63.53 35.85 0	7.22 66.68 25.42 0.68	4.89 65.57 29.10 0.44
Number of stores	93	162	255	34	66	100	36	63	99	163	291	454

224

.

## Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

.

Specialty Stores

Food Group and Level of Variety in		Urban			Mixed			Rural			Total	
Assortment	High- poverty	Other	Total	High- poverty	Other	Total	High . poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Hinimal No variety Not Available	0 0 36.00 64.00	0 1.25 40.80 57.95	0 0.91 39.49 59.60	0 0 37.21 62.79	0 0 41.01 58.99	0 0 40.46 59.54	0 0 100.00	0 5.33 50.28 44.38	0 4.83 45.50 49.68	0 0 34.75 65.25	0 1.21 41.91 56.88	0 0.96 40.40 58.64
EGGS Sufficient Hinimal No variety Not Available	3.32 6.27 32.97 57.44	1.21 1.25 29.90 67.65	1.78 2.63 30.74 64.85	0 0 37.45 62.55	0 0 20.65 79.35	0 0 23.06 76.94	0 0 0 100.00	5.33 0 22.19 72.48	4.83 0 20.08 75.10	2.37 4.49 32.64 60.50	1.19 0.63 25.50 72.67	1.44 1.45 27.00 70.11
CEREALS, GRAINS Sufficient Ninimal No variety Not Available	0 6.80 48.79 44.42	0 5.06 38.26 56.68	0 5.54 41.14 53.32	0 0 35.53 64.47	0 0 42.39 57.61	0 0 41.41 58.59	0 0 49.32 50.68	5.33 0 11.24 83.43	4.83 0 14.86 80.31	0 4.87 45.61 49.52	0.58 2.56 36.91 59.94	0.46 3.05 38.74 57.75
BAKERY PRODUCTS Sufficient Hinimal No variety Not Available	0 16.50 32.89 50.61	1.25 27.87 37.05 33.83	0.91 24.76 35.91 38.42	0 9.48 44.66 45.86	0 26.60 36.17 37.23	0 24.14 37.39 38.47	0 50.68 0 49.32	5.33 39.12 16.86 38.69	4.83 40.22 15.25 39.70	0 16.28 34.32 49.41	1.21 28.60 34.52 35.67	0.96 26.00 34.48 38.56
DINNER MIXTURES Sufficient Minimal No variety Not Available	0 3.07 39.52 57.40	0 1.25 44.68 54.07	0 1.75 43.27 54.98	0 0 18.01 81.99	0 0 39.64 60.36	0 0 36.54 63.46	0 0 0 100.00	5.33 0 11.24 83.43	4.83 0 10.17 85.01	0 2.20 32.64 65.16	0.58 0.63 39.11 59.68	0.46 0.96 37.74 60.83
DTHER FOODS Sufficient Ninimel No variety Not Available	0 10.23 54.81 34.95	0 3.71 70.52 25.78	0 5.49 66.22 28.29	0 9.24 63.63 27.13	0 6.30 64.09 29.61	0 6.72 64.02 29.25	0 0 100.00 0	5.33 5.62 50.50 38.55	4.83 5.08 55.21 34.88	0 9.56 58.88 31.57	0.58 4.91 65.87 28.64	0.46 5.89 64.40 29.26
Number of stores	31	81	112	11	64	75	2	18	20	44	163	207

## Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Group and Level of Variety in		Urban			Mixed			Rural			Total	
Assortment	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 4.87 88.60 6.53	0 4.97 93.03 2.00	0 4.95 92.37 2.67	0 0 89.48 10.52	0 0.91 98.21 0.88	0 0.76 96.78 2.46	0 0 95.75 4.25	0 4.75 93.82 1.43	0 3.55 94.31 2.14	0 1.95 90.38 7.68	0 3.25 95.28 1.46	0 3.03 94.45 2.52
EGGS Sufficient Minimal No variety Not Available	0 9.43 73.00 17.58	0 6.28 82.02 11.70	0 6.75 80.67 12.57	0 2.22 78.46 19.32	0.45 4.49 84.91 10.15	0.37 4.12 83.85 11.66	0 0 74.11 25.89	1.60 1.54 86.36 10.49	1.20 1.15 83.25 14.40	0 4.66 75.41 19.93	0.38 4.97 83.74 10.91	0.31 4.92 82.33 12.44
CEREALS, GRAINS Sufficient Minimal No variety Not Available	0 53.10 46.90 0	0.44 54.65 42.97 1.95	0.37 54.42 43.55 1.66	0 15.43 80.19 4.38	1.36 40.74 54.80 3.10	1.13 36.58 58.98 3.31	0 13.38 78.01 8.61	1.58 44.47 52.43 1.52	1.18 36.57 58.92 3.32	0 30.06 66.46 3.47	0.96 47.64 49.02 2.38	0.79 44.66 51.98 2.56
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	4.58 55.25 40.17 0	10.32 64.12 23.51 2.05	9.47 62.79 26.00 1.74	0 59.08 38.81 2.10	3.61 70.40 25.99 0	3.02 68.54 28.09 0.35	0 47.76 52.24 0	10.89 57.55 31.56 0	8.12 55.07 36.81 0	1.83 55.30 42.03 0.85	7.60 65.95 25.50 0.95	6.62 64.15 28.30 0.93
DINNER MIXTURES Sufficient Minimal No variety Not Available	0 25.38 72.53 2.09	0.39 24.86 72.79 1.96	0.33 24.94 72.75 1.98	0 6.69 91.21 2.10	0.45 18.26 78.63 2.67	0.37 16.36 80.70 2.57	0 12.97 87.03 0	1.58 26.47 70.40 1.54	1.18 23.04 74.62 1.15	0 15.40 82.92 1.68	0.56 22.30 74.93 2.21	0.46 21.13 76.29 2.12
OTHER FOODS Sufficient Minimal No variety Not Available	2.49 71.58 25.93 0	6.33 82.24 11.43 0	5.76 80.65 13.59 0	2.22 72.03 25.75 0	1.78 77.59 20.63 0	1.85 76.67 21.47 0	0 48.40 51.60 0	4.75 77.49 17.76 0	3.55 70.10 26.35 0	1.89 67.15 30.97 0	4.25 79.74 16.02 0	3.85 77.60 18.55 0
Number of stores	44	244	288	46	227	273	23	66	89	113	537	650

## Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Level of Variety in		Urban			Mixed			Rural			Total	
Assortment	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 0 91.24 8.76	0 15.28 84.72 0	0 12.70 85.82 1.48	0 0 100.00 0	0 7.88 92.12 0	0 6.85 93.15 0	0 5.67 94.33 0	0 2.68 96.04 1.29	0 3.25 95.71 1.04	0 2.49 95.06 2.46	0 8.01 91.53 0.46	0 7.10 92.11 0.79
EGGS Sufficient Minimal No variety Not Available	0 0 75.28 24.72	0 7.21 77.38 15.41	0 5.99 77.02 16.99	0 0 92.02 7.98	1.36 7.86 85.72 5.06	1.18 6.84 86.54 5.44	0 0 94.83 5.17	1.39 4.88 89.87 3.86	1.12 3.94 90.83 4.11	0 0 88.56 11.44	1.00 6.61 84.96 7.43	0.84 5.52 85.55 8.09
CEREALS, GRAINS Sufficient Minimal No variety Not Available	0 24.72 66.52 8.76	0 63.16 36.84 0	0 56.67 41.85 1.48	0 34.37 65.63 0	1.24 53.46 45.30 0	1.08 50.97 47.94 0	0 42.56 52.27 5.17	2.56 59.37 32.94 5.13	2.06 56.12 36.67 5.14	0 35.26 60.01 4.73	1.38 58.22 38.55 1.85	1.15 54.45 42.07 2.32
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	9.09 49.45 41.46 0	7.44 74.90 17.67 0	7.72 70.60 21.69 0	0 58.20 41.80 0	11.71 80.51 7.78 0	10.19 77.61 12.21 0	0 63.03 36.97 0	6.45 73.26 20.29 0	5.21 71.28 23.51 0	2.55 57.87 39.58 0	8.66 76.37 14.97 0	7.65 73.33 19.01 0
DINNER MIXTURES Sufficient Minimal No variety Not Available	0 9.09 82.15 8.76	0 54.08 45.92 0	0 46.48 52.04 1.48	0 0 100.00 0	0 38.20 60.61 1.19	0 33.23 65.73 1.04	0 21.60 78.40 0	0 30.32 67.24 2.44	0 28.64 69.40 1.97	0 12.03 85.51 2.46	0 39.66 59.02 1.32	0 35.13 63.37 1.51
DTHER FOODS Sufficient Minimal No variety Not Available	0 58.54 41.46 0	11.47 79.65 8.88 0	9.53 76.09 14.38 0	0 83.92 16.08 0	2.60 88.74 8.66 0	2.27 88.11 9.62 0	5.67 73.58 20.75 0	1.22 75.02 23.76 0	2.08 74.74 23.18 0	2.49 72.26 25.25 0	4.51 81.33 14.17 0	4.18 79.84 15.99 0
Number of stores	12	55	67	12	78	90	19	78	97	43	211	254

227

Grocery/Gas Outlets

## Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Other Stores

Food Group and Level of Variety in		Urban			Mixed			Rural			Total	
Assortment	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 0 44.55 55.45	0 4.72 59.44 35.84	0 3.21 54.67 42.13	0 5.80 55.91 38.28	0 7.52 60.89 31.59	0 7.21 60.01 32.78	0 0 58.22 41.78	0 15.76 72.31 11.93	0 10.12 67.27 22.62	0 1.31 50.32 48.36	0 7.62 62.10 30.28	0 5.87 58.84 35.29
EGGS Sufficient Minimal No variety Not Available	0 2.65 44.12 53.23	1.24 4.91 39.34 54.51	0.84 4.19 40.87 54.10	0 5.80 33.65 60.54	3.81 8.83 38.38 48.99	3.13 8.30 37.54 51.04	0 0 63.10 36.90	0 21.55 57.86 20.58	0 13.84 59.74 26.42	0 2.74 46.20 51.05	2.07 9.17 41.94 46.83	1.50 7.39 43.12 48.00
CEREALS, GRAINS Sufficient Minimal No variety Not Available	2.46 12.54 32.04 52.96	0 20.16 40.28 39.56	0.79 17.72 37.64 43.85	5.80 5.66 50.26 38.28	11.20 17.62 25.94 45.24	10.24 15.49 30.26 44.01	0 31.52 36.97 31.52	6.36 33.57 38.98 21.09	4.08 32.83 38.26 24.82	2.64 15.43 37.32 44.61	5.52 21.30 34.32 38.86	4.72 19.68 35.15 40.45
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	0 10.07 41.53 48.40	2.41 34.53 36.38 26.68	1.64 26.69 38.03 33.64	5.80 28.29 27.63 38.28	6.33 22.28 39.58 31.81	6.23 23.35 37.46 32.96	0 31.66 31.52 36.83	15.64 36.77 35.43 12.16	10.04 34.94 34.03 20.99	1.31 19.26 36.04 43.40	6.11 29.98 37.51 26.40	4.78 27.01 37.10 31.11
DINNER MIXTURES Sufficient Minimal No variety Not Available	0 2.46 39.80 57.73	0 5.93 58.97 35.10	0 4.82 52.83 42.35	5.80 0 50.04 44.16	3.76 7.56 47.26 41.42	4.12 6.22 47.75 41.91	0 16.08 46.95 36.97	0 28.16 50.75 21.09	0 23.83 49.39 26.77	1.31 5.10 43.79 49.79	1.51 10.17 52.95 35.38	1.45 8.76 50.41 39.37
DTHER FOODS Sufficient Minimal No variety Not Available	0 17.44 53.64 28.93	1.15 22.34 51.00 25.52	0.78 20.77 51.84 26.61	5.80 22.26 38.87 33.06	6.28 18.68 50.40 24.64	6.20 19.32 48.35 26.14	0 42.28 52.41 5.31	6.28 52.17 29.38 12.16	4.03 48.63 37.63 9.71	1.31 24.36 50.01 24.32	4.03 25.68 47.27 23.02	3.28 25.31 48.03 23.38
Number of stores	41	85	126	18	81	99	19	33	52	78	199	277

228

## Frequency Distribution of Retailers by Level of Variety in Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Food Group and Level		Urban			Mixed			Rural			Total	
Assortment	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
DAIRY PRODUCTS Sufficient Minimal No variety Not Available	0 4.65 72.75 22.60	0 21.50 66.29 12.21	0 17.71 67.74 14.54	0 13.15 69.74 17.11	0 24.33 65.51 10.16	0 22.46 66.22 11.33	0 9.05 77.57 13.38	0 28.05 67.84 4.11	0 23.70 70.07 6.23	0 8.01 72.94 19.05	0 23.76 66.30 9.94	0 20.52 67.66 11.81
EGGS Sufficient Minimal No variety Not Available	2.16 7.91 64.21 25.72	10.00 10.57 58.68 20.76	8.23 9.97 59.92 21.87	2.13 6.91 62.03 28.93	10.18 10.73 60.25 18.83	8.83 10.09 60.55 20.53	0.88 4.56 76.65 17.91	9.61 12.14 68.91 9.34	7.61 10.40 70.69 11.30	1.87 6.90 66.28 24.94	9.99 10.92 61.18 17.91	8.32 10.10 62.23 19.35
CEREALS, GRAINS Sufficient Ninimal No variety Not Available	9.26 33.96 41.29 15.49	20.56 34.60 34.05 10.80	18.02 34.45 35.68 11.85	14.53 16.96 56.68 11.83	24.00 28.53 35.54 11.93	22.41 26.59 39.08 11.91	10.80 29.02 50.32 9.86	28.27 37.74 26.51 7.48	24.27 35.74 31.96 8.03	11.09 28.08 47.60 13.24	23.26 32.98 33.17 10.58	20.76 31.97 36.14 11.13
BAKERY PRODUCTS Sufficient Minimal No variety Not Available	9.19 35.88 37.70 17.23	24.96 40.74 25.51 8.78	21.42 39.65 28.25 10.68	12.48 41.75 35.43 10.35	26.22 44.95 21.52 7.31	23.91 44.42 23.85 7.82	8.99 45.14 38.71 7.17	33.52 43.08 20.08 3.31	27.91 43.55 24.35 4.20	10.08 39.54 37.27 13.11	27.03 42.71 23.04 7.22	23.55 42.06 25.96 8.43
DINNER MIXTURES Sufficient Minimal No variety Not Available	3.34 14.04 63.40 19.23	18.21 16.61 55.12 10.06	14.86 16.03 56.98 12.12	11.05 7.67 68.77 12.51	19.63 16.99 51.80 11.58	18.20 15.42 54.64 11.74	9.90 18.13 63.01 8.97	16.79 32.71 43.58 6.92	15.21 29.38 48.03 7.39	6.94 13.12 64.83 15.11	18.46 19.78 51.74 10.02	16.09 18.41 54.43 11.07
DTHER FOODS Sufficient finimal To variety Tot Available	5.00 49.74 35.85 9.40	22.84 48.71 23.13 5.33	18.83 48.94 25.99 6.24	13.85 47.44 32.48 6.23	23.15 49.11 21.98 5.77	21.59 48.83 23.74 5.84	9.05 55.14 34.90 0.91	27.12 53.39 16.45 3.05	22.98 53.79 20.67 2.56	8.38 50.26 34.69 6.67	23.76 49.74 21.45 5.06	20.59 49.84 24.17 5.39
lumber of stores	243	818	1061	144	693	837	111	363	474	498	1874	2372

All Store Types

## Average Level of Variety of Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Group and Level of Variety in		Urban			Mixed		Rural			Total		
Assortment	High- poverty	Other	Total									
FRESH MEAT	2.40	2.70	2.68	2.81	2.59	2.61	2.57	2.28	2.31	2.63	2.59	2.60
PROCESSED MEAT	2.65	2.85	2.84	2.89	2.82	2.83	2.71	2.59	2.60	2.78	2.80	2.80
FRESH POULTRY	2.29	2.32	2.32	2.19	2.14	2.14	2.10	1.87	1.89	2.20	2.18	2.18
FRESH SEAFOOD	0.99	2.39	2.31	0.71	1.56	1.49	0.83	0.66	0.68	0.83	1.80	1.73
PACKAGED MEAT	2.01	2.16	2.15	2.28	2.19	2.20	2.07	1.90	1.92	2.15	2.13	2.13
FRESH PRODUCE	1.71	2.21	2.18	2.13	2.06	2.06	1.76	1.77	1.77	1.92	2.08	2.07
PACKAGED PRODUCE	2.38	2.55	2.54	2.53	2.54	2.54	2.39	2.29	2.30	2.45	2.50	2.50
DAIRY PRODUCTS	1.52	1.66	1.65	1.70	1.65	1.66	1.62	1.56	1.57	1.63	1.64	1.64
EGGS	1.67	2.24	2.21	1.85	2.11	2.09	1.32	1.98	1.92	1.68	2.15	2.12
CEREALS, GRAINS	2.80	2.76	2.76	2.78	2.71	2.72	2.71	2.56	2.57	2.77	2.71	2.71
BAKERY PRODUCTS	2.89	2.88	2.88	2.91	2.89	2.89	2.70	2.78	2.77	2.86	2.87	2.87
DINNER MIXTURES	2.48	2.71	2.70	2.74	2.66	2.67	2.79	2.38	2.42	2.67	2.64	2.64
OTHER FOODS	2.66	2.80	2.79	2.83	2.71	2.72	2.64	2.58	2.59	2.74	2.73	2.73
Number of stores	9	154	163	14	138	152	6	55	61	29	347	376

Food Group and Level		Urban			Mixed			Rural			Total	
of Variety in Assortment	High- poverty	Other	Total									
FRESH MEAT	1.11	1.27	1.23	1.74	1.80	1.79	2.35	2.08	2.10	1.56	1.75	1.72
PROCESSED MEAT	1.95	1.79	1.83	2.22	2.28	2.27	2.68	2.50	2.52	2.19	2.22	2.21
FRESH POULTRY	0.91	0.99	0.97	1.20	1.36	1.33	2.07	1.40	1.47	1.24	1.27	1.26
FRESH SEAFOOD	0.48	0.20	0.27	0.12	0.07	0.08	0.00	0.50	0.45	0.27	0.28	0.28
PACKAGED MEAT	1.14	1.07	1.09	1.34	1.40	1.39	2.03	1.69	1.72	1.39	1.41	1.41
FRESH PRODUCE	0.81	1.07	1.00	1.14	1.38	1.34	1.64	1.48	1.50	1.09	1.33	1.28
PACKAGED PRODUCE	1.42	1.44	1.44	1.72	1.97	1.93	2.15	2.15	2.15	1.67	1.88	1.84
DATRY PRODUCTS	0.90	1.02	0.99	1.29	1.35	1.34	1.55	1.55	1.55	1.16	1.33	1.30
ECCS	1.61	1.32	1.39	1.10	1.44	1.38	1.65	1.62	1.63	1.46	1.47	1.47
CEDEALS CRAINS	1.05	2.09	2.05	2.27	2.49	2.45	2.65	2.66	2.66	2.20	2.44	2.39
DAVERY DRODUCTS	1.85	2.02	1.98	2.30	2.59	2.54	2.66	2.80	2.79	2.16	2.50	2.44
DAKERT PRODUCIS	1 59	1 35	1 41	1.86	2.08	2.04	2.58	2.37	2.39	1.88	1.97	1.96
DINNER MIATURES	2.02	2.11	2.00	2 79	2 51	2 49	2 56	2.60	2.50	2.24	2.62	2.39
Number of stores	13	37	50	9	39	48	6	50	56	28	126	154

Large Grocery Stores

## Average Level of Variety of Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Small Grocery Stores	Small	Grocer	y Stores
----------------------	-------	--------	----------

Food Group and Level	Urban			Mixed			Rural			Total		
Assortment	High- poverty	Other	Total									
FRESH MEAT	0.31	0.31	0.31	0.10	0.31	0.24	0.12	0.47	0.35	0.23	0.34	0.30
PROCESSED MEAT	1.43	1.20	1.28	1.05	1.18	1.14	1.28	1.55	1.45	1.32	1.27	1.29
FRESH POULTRY	0.42	0.21	0.28	0.07	0.12	0.10	0.03	0.21	0.14	0.27	0.19	0.22
FRESH SEAFOOD	0.06	0.04	0.05	0.09	0.00	0.03	0.00	0.06	0.04	0.05	0.04	0.04
PACKAGED MEAT	0.70	0.64	0.66	0.58	0.60	0.59	0.63	0.83	0.76	0.66	0.67	0.67
FRESH PRODUCE	0.47	0.51	0.49	0.33	0.41	0.39	0.32	0.62	0.51	0.41	0.51	0.47
PACKAGED PRODUCE	1.02	0.97	0.99	0.94	1.07	1.03	0.95	1.30	1.17	0.99	1.06	1.03
DAIRY PRODUCTS	0.61	0.67	0.65	0.52	0.68	0.63	0.54	0.88	0.75	0.58	0.71	0.67
EGGS	0.92	0.89	0.90	0.61	0.90	0.81	0.91	1.05	1.00	0.85	0.93	0.90
CEREALS, GRAINS	1.53	1.41	1.45	1.06	1.41	1.29	1.15	1.83	1.59	1.35	1.50	1.45
BAKERY PRODUCTS	1.49	1.42	1.45	1.32	1.66	1.55	1.45	1.84	1.70	1.45	1.56	1.52
DINNER MIXTURES	0.86	0.77	0.80	0.56	0.80	0.72	0.88	1.35	1.18	0.80	0.90	0.87
OTHER FOODS	1.66	1.69	1.68	1.44	1.73	1.63	1.58	1.98	1.84	1.60	1.76	1.70
Number of stores	93	162	255	34	66	100	36	63	99	163	291	454

Food Group and Level	Urban			Mixed				Rural		Total		
of Variety in Assortment	High- poverty	Other	Total									
FRESH MEAT	0.67	0.61	0.63	0.47	0.72	0.68	0.00	0.93	0.84	0.60	0.69	0.67
PROCESSED MEAT	0.58	0.49	0.51	0.59	0.54	0.55	0.00	0.96	0.87	0.56	0.56	0.56
FRESH POULTRY	0.69	0.48	0.54	0.02	0.34	0.30	0.00	0.48	0.43	0.50	0.43	0.44
FRESH SEAFOOD	0.55	0.89	0.79	0.88	0.27	0.36	1.48	0.33	0.44	0.67	0.59	0.61
PACKAGED MEAT	0.29	0.31	0.31	0.13	0.17	0.16	0.13	0.30	0.28	0.25	0.26	0.25
FRESH PRODUCE	0.13	0.17	0.16	0.16	0.12	0.12	0.00	0.24	0.21	0.13	0.16	0.15
PACKAGED PRODUCE	0.27	0.23	0.24	0.23	0.26	0.25	0.34	0.27	0.28	0.26	0.24	0.25
DAIRY PRODUCTS	0.20	0.18	0.19	0.13	0.17	0.16	0.00	0.42	0.38	0.18	0.20	0.20
FGGS	0.55	0.36	0.41	0.37	0.21	0.23	0.00	0.38	0.34	0.48	0.30	0.34
CEREALS, GRAINS	0.35	0.27	0.29	0.18	0.16	0.16	0.01	0.24	0.22	0.29	0.22	0.24
BAKERY PRODUCTS	0.59	0.88	0.80	0.75	0.80	0.79	1.05	1.02	1.02	0.65	0.87	0.82
DINNER MIXTURES	0.18	0.15	0.16	0.07	0.10	0.10	0.00	0.20	0.19	0.14	0.14	0.14
OTHER FOODS	0.50	0.45	0.46	0.37	0.40	0.40	0.26	0.34	0.34	0.46	0.42	0.43
Number of stores	31	81	112	11	64	75	2	18	20	44	163	207

## Specialty Stores

231

## Average Level of Variety of Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Group and Level of Variety in		Urban			Mixed			Rural			Total	
Assortment	High- poverty	Other	Total									
FRESH MEAT	0.07	0.14	0.13	0.07	0.05	0.05	0.01	0.15	0.12	0.06	0.10	0.09
PROCESSED MEAT	1.27	1.50	1.47	1.19	1.42	1.38	1.19	1.42	1.36	1.22	1.46	1.42
FRESH POULTRY	0.10	0.04	0.05	0.01	0.02	0.01	0.00	0.06	0.04	0.05	0.03	0.03
FRESH SEAFOOD	0.00	0.03	0.02	0.06	0.00	0.01	0.00	0.00	0.00	0.03	0.01	0.02
PACKAGED MEAT	0.72	0.63	0.64	0.59	0.65	0.64	0.55	0.67	0.64	0.63	0.64	0.64
FRESH PRODUCE	0.33	0.35	0.35	0.22	0.22	0.22	0.19	0.33	0.29	0.26	0.29	0.29
PACKAGED PRODUCE	1.00	1.00	1.00	0.87	0.94	0.93	0.82	1.09	1.02	0.91	0.99	0.97
DAIRY PRODUCTS	0.63	0.80	0.77	0.53	0.73	0.70	0.50	0.80	0.72	0.57	0.77	0.74
EGGS	0.91	0.94	0.93	0.82	0.94	0.92	0.73	0.93	0.88	0.84	0.94	0.92
CEREALS, GRAINS	1.46	1.55	1.54	1.03	1.35	1.30	0.79	1.39	1.24	1.15	1.45	1.40
BAKERY PRODUCTS	1.52	1.78	1.74	1.60	1.78	1.75	1.46	1.79	1.70	1.54	1.78	1.74
INNER MIXTURES	1.01	1.05	1.05	0.70	0.87	0.85	0.66	1.06	0.96	0.82	0.98	0.95
DTHER FOODS	1.75	1.93	1.90	1.70	1.78	1.76	1.45	1.82	1.72	1.67	1.85	1.82
lumber of stores	44	244	288	46	227	273	23	66	89	113	537	650

Food Group and Level		Urban	_		Mixed			Rural			Total	
of Variety in Assortment	High- poverty	Other	Total									
FRESH MEAT	0.05	0.02	0.02	0.07	0.06	0.06	0.18	0.10	0.12	0.11	0.07	0.07
PROCESSED MEAT	1.20	1.70	1.61	1.11	1.50	1.45	1.72	1.47	1.52	1.40	1.54	1.52
FRESH POULTRY	0.00	0.00	0.00	0.05	0.00	0.01	0.01	0.02	0.02	0.02	0.01	0.01
FRESH SEAFOOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PACKAGED MEAT	0.60	0.69	0.68	0.54	0.69	0.67	0.67	0.67	0.67	0.61	0.68	0.67
FRESH PRODUCE	0.07	0.45	0.39	0.17	0.31	0.29	0.29	0.36	0.34	0.19	0.36	0.34
PACKAGED PRODUCE	0.71	1.02	0.97	0.99	1.09	1.08	0.99	1.06	1.04	0.91	1.06	1.03
ATRY PRODUCTS	0.45	1.05	0.94	0.50	0.88	0.83	0.69	0.76	0.75	0.57	0.88	0.83
EGGS	0.75	0.91	0.88	0.91	1.05	1.03	0.94	1.03	1.01	0.88	1.00	0.98
CEREALS CRAINS	1.08	1.66	1.56	1.21	1.52	1.48	1.40	1.52	1.50	1.26	1.56	1.51
AVERY PRODUCTS	1.62	1.94	1.89	1.68	2.03	1.99	1.71	1.88	1.84	1.67	1.95	1.91
INNER MITTIRES	0.57	1.30	1.25	0.52	1.14	1.06	0.88	1.06	1.03	0.69	1.18	1.10
THER FOODE	1.56	2.08	1 00	1.74	1.94	1.92	1.84	1.78	1.80	1.73	1.92	1.89
lumber of stores	12	55	67	12	78	90	19	78	97	43	211	254

## Grocery/Gas Outlets

232

## Average Level of Variety of Assortment by Food Group, Degree of Urbanization, Poverty Level and Store Type

Other Stores

Food Group and Level of Variety in	Urban			Hixed			Rural			Total		
Assortment	High- poverty	Other	Total									
FRESH MEAT	0.06	0.17	0.13	0.24	0.24	0.24	0.05	0.30	0.21	0.10	0.22	0.18
PROCESSED MEAT	0.32	0.48	0.42	0.68	0.47	0.51	0.81	0.95	0.90	0.51	0.55	0.54
FRESH POULTRY	0.05	0.11	0.09	0.22	0.17	0.18	0.00	0.10	0.06	0.08	0.13	0.12
FRESH SEAFOOD	0.07	0.07	0.07	0.23	0.08	0.10	0.00	0.00	0.00	0.09	0.06	0.07
PACKAGED MEAT	0.22	0.29	0.27	0.41	0.35	0.36	0.46	0.57	0.53	0.32	0.36	0.35
FRESH PRODUCE	0.76	0.44	0.54	0.72	0.53	0.56	0.54	0.66	0.62	0.70	0.51	0.56
PACKAGED PRODUCE	0.32	0.44	0.40	0.57	0.55	0.55	0.62	0.94	0.83	0.45	0.56	0.53
DAIRY PRODUCTS	0.21	0.38	0.32	0.32	0.44	0.42	0.38	0.83	0.67	0.27	0.47	0.42
EGGS	0.49	0.52	0.51	0.45	0.66	0.62	0.63	1.00	0.87	0.51	0.65	0.61
CEREALS, GRAINS	0.48	0.65	0.60	0.58	0.78	0.74	0.84	1.25	1.11	0.59	0.80	0.74
BAKERY PRODUCTS	0.57	1.06	0.90	0.92	0.94	0.93	0.91	1.51	1.30	0.73	1.09	0.99
DINNER MIXTURES	0.17	0.38	0.31	0.45	0.48	0.47	0.55	0.87	0.76	0.32	0.50	0.45
OTHER FOODS	0.63	0.86	0.79	0.87	0.92	0.92	1.10	1.50	1.36	0.79	0.99	0.94
Number of stores	41	85	126	18	81	99	19	33	52	78	199	277

 			in the last
 	TOPA		me.
 		_	

Food Group and Level of Variety in		Urban			Mixed			Rural			Total	
of Variety in Assortment	High- poverty	Other	Total									
FRESH MEAT	0.38	0.75	0.67	0.50	0.76	0.72	0.35	0.84	0.73	0.41	0.77	0.70
PROCESSED MEAT	1.17	1.51	1.44	1.27	1.54	1.50	1.39	1.72	1.64	1.24	1.56	1.50
FRESH POULTRY	0.41	0.59	0.55	0.34	0.57	0.53	0.24	0.56	0.49	0.35	0.58	0.53
FRESH SEAFOOD	0.17	0.57	0.48	0.21	0.35	0.33	0.07	0.20	0.17	0.16	0.42	0.37
PACKAGED MEAT	0.64	0.88	0.82	0.73	0.92	0.89	0.73	1.00	0.94	0.68	0.91	0.87
FRESH PRODUCE	0.49	0.76	0.70	0.54	0.71	0.68	0.47	0.79	0.72	0.50	0.75	0.70
PACKAGED PRODUCE	0.86	1.17	1.10	1.02	1.24	1.20	1.01	1.39	1.31	0.94	1.24	1.18
DAIRY PRODUCTS	0.54	0.86	0.78	0.63	0.88	0.84	0.63	1.01	0.92	0.58	0.89	0.83
FGGS	0.85	1.09	1.04	0.81	1.11	1.06	0.88	1.21	1.13	0.85	1.12	1.06
CEREALS, GRAINS	1.24	1.56	1.49	1,18	1.53	1.47	1.21	1.78	1.65	1.21	1.59	1.52
BAKERY PRODUCTS	1.30	1.78	1.67	1.56	1.88	1.82	1.53	2.04	1.93	1.42	1.86	1.77
DINNER MIXTURES	0.77	1,19	1.09	0.84	1.20	1.14	0.96	1.43	1.32	0.83	1.24	1.16
OTHER FOODS	1.41	1.80	1.71	1.59	1.79	1.76	1.60	1.96	1.88	1.50	1.83	1.76
Number of stores	243	818	1061	144	693	837	111	363	474	498	1874	2372

.

#### Average Level of Quality of Foods in the Market Basket by Food Group, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Groups			Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT	Average Number	0.99	0.99	0.99	0.99	0.99	0.99 137	1.00	0.98	0.98	0.99 26	0.99	0.99
PROCESSED MEAT	Average Number	0.99	0.99	0.99	1.00	0.99	0.99	1.00	0.99	0.99	1.00 29	0.99 341	0.99 370
FRESH POULTRY	Average Number	0.82	0.98 134	0.98	0.99	0.99	0.99	1.00	0.97	0.98	0.95	0.99 293	0.98
PACKAGED MEAT	Average Number	0.99	0.99	0.99	1.00	1.00 136	1.00	1.00	1.00	1.00	1.00 29	1.00 343	1.00 372
FRESH PRODUCE	Average Number	0.95	0.97	0.97	0.96	0.97 133	0.97 147	0.98	0.97	0.97	0.96 29	0.97 338	0.97 367
PACKAGED PRODUCE	Average Number	0.98	1.00	1.00 163	1.00	1.00 138	1.00 152	1.00	0.99	0.99 61	0.99 29	1.00 347	1.00 376
DAIRY PRODUCTS	Average Number	1.00	1.00 154	1.00	1.00	1.00 138	1.00 152	1.00	1.00	1.00 61	1.00 29	1.00 347	1.00 376
EGGS	Average Number	1.00	1.00 153	1.00	1.00	0.99 133	0.99	1.00	0.98 54	0.98	1.00 28	0.99 340	0.99 368
CEREALS, GRAINS	Average Number	1.00	1.00 154	1.00 163	1.00	1.00 138	1.00 152	1.00	1.00	1.00 61	1.00 29	1.00 347	1.00 376
BAKERY PRODUCTS	Average Number	1.00	1.00	1.00	1.00 14	1.00	1.00	1.00	0.99	0.99	1.00 29	1.00 345	1.00 374
DINNER MIXTURES	Average Number	0.95	1.00 153	0.99	1.00 14	1.00 137	1.00	1.00	1.00	1.00 61	0.99 29	1.00 345	1.00 374
OTHER FOODS	Average Number	1.00	1.00	1.00	1.00	1.00 138	1.00	1.00	1.00	1.00	1.00 29	1.00 347	1.00 376
ALL FOODS	Average Number	0.98	0.99 154	0.99	0.99 14	0.99	0.99	1.00	0.99	0.99 61	0.99 29	0.99 347	0.99 376

## Average Level of Quality of Foods in the Market Basket by Food Group, Degree of Urbanization, Poverty Level and Store Type

					railar aio								
Food Groups			Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT	Average Number	1.00	1.00 13	1.00	1.00	0.91 28	0.93	1.00	0.98	0.99	1.00	0.96	0.97 94
PROCESSED MEAT	Average Number	1.00	0.99	0.99 34	0.88	0.97 35	0.95	1.00	0.99	0.99	0.96	0.98	0.98 134
FRESH POULTRY	Average Number	1.00 2	1.00	1.00 10	1.00	1.00 19	1.00 23	1.00	0.96 26	0.97	1.00	0.98	0.98
PACKAGED HEAT	Average Number	1.00	0.99	1.00	1.00	0.99 36	0.99	1.00	1.00	1.00	1.00 26	0.99	0.99
FRESH PRODUCE	Average Number	0.90	0.91 30	0.90 40	0.90	0.89	0.89 47	0.96	0.96	0.96	0.91 24	0.92	0.92
PACKAGED PRODUCE	Average Number	0.98	0.99	0.99 47	0.99	1.00	1.00	0.99	1.00	0.99	0.99 27	0.99	0.99
DAIRY PRODUCTS	Average Number	1.00	0.99	0.99	1.00	0.98	0.99 48	0.98	1.00	1.00	1.00 26	0.99	0.99
EGGS	Average Number	0.99	0.95	0.96	1.00	0.99	0.99	1.00	0.99	0.99	1.00	0.98	0.98 144
CEREALS, GRAINS	Average Number	1.00	1.00 36	1.00	0.99	1.00	1.00	1.00	1.00 50	1.00	1.00 28	1.00 125	1.00 153
BAKERY PRODUCTS	Average Number	1.00	0.99	0.99	1.00	1.00	1.00	1.00	1.00 50	1.00	1.00 26	1.00 120	1.00 146
INNER MIXTURES	Average Number	1.00	0.98	0.99	1.00	0.99 38	1.00 47	1.00	1.00 50	1.00	1.00 26	0.99 119	0.99 145
THER FOODS	Average Number	0.99	1.00	1.00 47	1.00	1.00	1.00	1.00	1.00	1.00	1.00 28	1.00 123	1.00 151
LL FOODS	Average Number	0.98	0.98	0.98	0.97	0.96	0.97	0.99	0.99	0.99	0.98	0.98	0.98

#### Large Grocery Stores

235

## Average Level of Quality of Foods in the Market Basket by Food Group, Degree of Urbanization, Poverty Level and Store Type

Small Grocery Stores

Food Groups			Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT	Average Number	0.87	0.99	0.93	0.83	1.00	0.94	1.00	0.67	0.81	0.92	0.84	0.88
PROCESSED MEAT	Average Number	1.00	0.96 93	0.97	0.97	0.92	0.93	0.98	0.96	0.97	0.99 90	0.95	0.96 272
FRESH POULTRY	Average Number	1.00	1.00 2	1.00	0	1.00	1.00	1.00	0.84	0.87	1.00	0.91	0.93
PACKAGED MEAT	Average Number	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99 228	0.99 342
FRESH PRODUCE	Average Number	0.86	0.85	0.86 174	0.90	0.83 38	0.86	0.91	0.88	0.89	0.88	0.85	0.86 300
PACKAGED PRODUCE	Average Number	0.98 91	0.99	0.99 243	0.98	0.99	0.99	1.00	1.00	1.00	0.99	0.99 280	0.99
DAIRY PRODUCTS	Average Number	0.99 84	0.99 145	0.99 229	0.99 27	0.98	0.99 87	1.00 31	1.00	1.00 90	0.99	0.99 264	0.99
EGGS	Average Number	0.99	0.96 118	0.97 181	1.00 21	0.99	0.99	0.97	0.98	0.98	0.99	0.97 217	0.98
CEREALS, GRAINS	Average Number	1.00 91	0.99	0.99 249	0.99	0.99	0.99	0.97	0.99	0.99 94	0.99	0.99 283	0.99 438
BAKERY PRODUCTS	Average Number	0.99 87	0.99	0.99 231	0.99	0.99	0.99	1.00 36	1.00	1.00 96	0.99	0.99 267	0.99
DINNER MIXTURES	Average Number	0.97	0.99	0.98 218	0.96 28	0.99	0.98	1.00 30	1.00	1.00 90	0.97 143	0.99 252	0.98
OTHER FOODS	Average Number	1.00	1.00	1.00 248	0.98	1.00	0.99 97	1.00	0.99	1.00 98	1.00	0.99 286	1.00 443
ALL FOODS	Average Number	0.97 93	0.97	0.97	0.97	0.97	0.97	0.98 36	0.97	0.97 99	0.97	0.97 290	0.97 453

#### Average Level of Quality of Foods in the Market Basket by Food Group, Degree of Urbanization, Poverty Level and Store Type

						-,							
Food Groups			Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT	Average Number	0	0.80	0.80	0	1.00	1.00	0	1.00	1.00	0	0.92 13	0.92
PROCESSED MEAT	Average Number	1.00	1.00	1.00	1.00	0.99	1.00	0	1.00	1.00	1.00	1.00	1.00 27
FRESH POULTRY	Average Number	0	1.00	1.00	0	1.00	1.00	0	1.00	1.00	0	1.00	1.00
PACKAGED MEAT	Average Number	1.00	1.00 13	1.00	1.00	1.00	1.00	0	1.00 2	1.00 2	1.00	1.00 21	1.00
FRESH PRODUCE	Average Number	0.89	0.88 17	0.89	1.00	0.96	0.97	0	0.99	0.99	0.92	0.92	0.92
ACKAGED PRODUCE	Average Number	0.97	0.96 37	0.97	1.00	1.00	1.00 43	1.00	1.00	1.00	0.98 20	0.98	0.98
DAIRY PRODUCTS	Average Number	1.00	0.98 24	0.98 34	1.00	1.00 21	1.00	0	0.99	0.99	1.00 13	0.99 51	0.99
GGS	Average Number	1.00	1.00	1.00 37	0.94	1.00	0.98	0	1.00	1.00	0.99 17	1.00	1.00 56
EREALS, GRAINS	Average Number	1.00	0.99 33	1.00	1.00 2	1.00 17	1.00	0	1.00	1.00	1.00 15	1.00 53	1.00 68
AKERY PRODUCTS	Average Number	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 17	1.00	1.00 102
INNER MIXTURES	Average Number	0.99	1.00	1.00	1.00	1.00	1.00 13	0	1.00 2	1.00	0.99	1.00 26	1.00 34
THER FOODS	Average Number	1.00	1.00 36	1.00	1.00	1.00 23	1.00 26	1.00	1.00	1.00	1.00 18	1.00 61	1.00
LL FOODS	Average Number	0.99 21	0.97	0.97 87	0.99	1.00	1.00	1.00	0.99	0.99	0.99 34	0.98 123	0.98

.

Specialty Stores

## Average Level of Quality of Foods in the Market Basket by Food Group, Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Groups			Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT	Average Number	0.62	1.00	0.81	1.00	0	1.00 2	0	0.96	0.96	0.76	0.98	0.88
PROCESSED MEAT	Average Number	0.99 29	1.00 184	0.99 213	0.89	0.96	0.95 208	1.00	0.98	0.99	0.95	0.98	0.97 485
FRESH POULTRY	Average Number	1.00	1.00	1.00	0	0	0	0	1.00	1.00 2	1.00	1.00	1.00
PACKAGED MEAT	Average Number	0.98	0.99 213	0.99 251	0.99	0.99	0.99 224	1.00	1.00	1.00	0.99 89	0.99 458	0.99 547
FRESH PRODUCE	Average Number	0.87	0.92	0.91 124	0.83	0.92	0.91 69	0.84	0.92	0.91 36	0.85	0.92	0.91 229
PACKAGED PRODUCE	Average Number	0.96	1.00 241	0.99 285	0.99	0.99 227	0.99 273	1.00 23	1.00	1.00	0.98	0.99	0.99 647
DAIRY PRODUCTS	Average Number	0.98	1.00 237	0.99 276	1.00	0.99 222	0.99 263	1.00	0.99	0.99	0.99	0.99 523	0.99 624
EGGS	Average Number	1.00	0.98	0.98	0.87	0.98 183	0.97 212	0.94	1.00	0.99 74	0.94	0.98 436	0.98 513
CEREALS, GRAINS	Average Number	0.98	0.99 235	0.99 279	0.96	0.98 216	0.97 260	0.97 20	1.00	0.99 83	0.97 108	0.99 514	0.98 622
BAKERY PRODUCTS	Average Number	1.00	1.00 237	1.00 280	1.00	1.00	1.00 272	1.00	1.00	1.00 87	1.00	1.00 530	1.00 639
DINNER MIXTURES	Average Number	0.99	0.99 224	0.99 265	0.98	0.99 212	0.99	1.00 20	0.99	1.00	0.99 104	0.99 501	0.99 605
OTHER FOODS	Average Number	1.00	0.99 241	0.99 284	1.00	0.99 226	0.99 272	1.00	0.99	1.00	1.00	0.99	0.99
ALL FOODS	Average Number	0.97	0.99 243	0.99 287	0.98	0.99 227	0.98 273	0.99 23	0.99	0.99 89	0.98 113	0.99 536	0.99

## Average Level of Quality of Foods in the Market Basket by Food Group, Degree of Urbanization, Poverty Level and Store Type

Grocery	/Gas	Out	ets

Food Groups			Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT	Average Number	0	0	0	0	1.00	1.00 2	1.00	1.00	1.00	1.00	1.00	1.00
PROCESSED MEAT	Average Number	0.84	0.99	0.97	0.89	0.98	0.97	1.00 17	0.98	0.99	0.93	0.98 172	0.98 206
FRESH POULTRY	Average Number	0	0	0	0	0	0	1.00	1.00	1.00	1.00	1.00	1.00 2
PACKAGED MEAT	Average Number	1.00	1.00	1.00	1.00	1.00	1.00 81	1.00 18	1.00 70	1.00	1.00	1.00 194	1.00 229
FRESH PRODUCE	Average Number	0.93	0.93	0.93 26	0.77	0.85	0.85	0.92 8	0.89	0.89	0.88	0.89	0.88
PACKAGED PRODUCE	Average Number	1.00	1.00	1.00 67	1.00	0.99 78	0.99	1.00 19	1.00 78	1.00 97	1.00	1.00 211	1.00 254
DAIRY PRODUCTS	Average Number	1.00	0.99	1.00	0.93	1.00	0.95	1.00 19	1.00	1.00 96	0.98	1.00 209	0.99 251
EGGS	Average Number	1.00	0.99	0.99	1.00	0.97 72	0.98	1.00 18	0.99 74	0.99 92	1.00	0.98	0.99 227
CEREALS, GRAINS	Average Number	1.00	0.99	0.99	0.94	1.00 78	0.99	1.00 18	1.00	1.00 90	0.98	1.00 204	1.00 245
BAKERY PRODUCTS	Average Number	1.00	0.99	0.99	1.00	1.00 78	1.00 90	1.00 19	1.00 78	1.00 97	1.00 43	1.00 209	1.00 252
DINNER MIXTURES	Average Number	1.00	0.99	0.99	1.00	0.99 76	0.99	1.00 18	1.00	1.00	1.00	0.99 202	0.99 243
DTHER FOODS	Average Number	1.00	0.99	0.99 67	0.99	1.00 78	1.00 90	0.99	1.00 78	1.00 97	0.99	1.00 211	1.00
ALL FOODS	Average Number	0.99	0.99	0.99	0.96	0.98 78	0.98	0.99	0.99 78	0.99 97	0.98 43	0.99 211	0.99 254

.

## Average Level of Quality of Foods in the Market Basket by Food Group, Degree of Urbanization, Poverty Level and Store Type

Other Stores

Food Groups			Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT	Average Number	1.00 2	1.00	1.00	0.75	1.00	0.94	0	1.00	1.00	0.88	1.00	0.97
PROCESSED MEAT	Average Number	1.00	1.00	1.00	0.92	0.98	0.96 20	1.00	0.98	0.99	0.97	0.99	0.98
FRESH POULTRY	Average Number	0	0	0	1.00	1.00	1.00	0	1.00	1.00	1.00	1.00	1.00
PACKAGED MEAT	Average Number	1.00	1.00	1.00	0.98	0.99	0.99	1.00	1.00 23	1.00	1.00	0.99	1.00
FRESH PRODUCE	Average Number	0.88	0.94	0.91 54	0.84	0.94	0.92	0.99	0.94 23	0.96	0.90 47	0.94 93	0.92
PACKAGED PRODUCE	Average Number	0.97	1.00	0.99	0.97	0.98	0.97	1.00	1.00 27	1.00 40	0.98	0.99	0.99 179
DATRY PRODUCTS	Average Number	1.00	1.00	1.00	0.98	1.00	1.00	1.00	0.98	0.99	1.00	0.99	0.99 148
EGGS	Average Number	1.00	1.00	1.00	0.98	0.97	0.97	0.91	0.99 24	0.97	0.97	0.99 93	0.98
CEREALS, GRAINS	Average Number	1.00	0.99	0.99	0.97	0.99	0.98	0.95	1.00	0.98	0.98 38	0.99	0.99
BAKERY PRODUCTS	Average Number	1.00	0.98	0.99	0.99	0.97	0.97	1.00 12	1.00	1.00	1.00	0.98	0.99
DINNER MIXTURES	Average Number	1.00	0.98	0.98	0.99	0.97	0.98	1.00 11	1.00	1.00	1.00 29	0.98	0.98
OTHER FOODS	Average Number	1.00	1.00	1.00	0.98	0.99	0.99	1.00	1.00 27	1.00	0.99	0.99	0.99 157
ALL FOODS	Average Number	0.93	0.98	0.96	0.94	0.97 71	0.96 87	0.99 18	0.98	0.98	0.95 71	0.97	0.97 254

240

#### Average Level of Quality of Foods in the Market Basket by Food Group, Degree of Urbanization, Poverty Level and Store Type

All Store Types

Food Groups	/		Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
FRESH MEAT	Average Number	0.89	0.99	0.98 186	0.96	0.98	0.98	1.00	0.96	0.96	0.95	0.98 434	0.97
PROCESSED MEAT	Average Number	0.98	0.99 524	0.99 632	0.93 93	0.97 478	0.96	0.99 77	0.98 277	0.98	0.97 278	0.98 1279	0.98
FRESH POULTRY	Average Number	0.89	0.99	0.98	0.99	1.00 146	1.00 163	1.00	0.96	0.97 93	0.97	0.99 374	0.98 415
PACKAGED MEAT	Average Number	0.99	0.99 613	0.99 757	1.00	0.99 518	0.99 613	1.00	1.00 310	1.00 399	0.99 328	0.99	0.99
FRESH PRODUCE	Average Number	0.88 135	0.92 468	0.91 603	0.89	0.92 358	0.92 427	0.93 60	0.93 252	0.93 312	0.89 264	0.92 1078	0.92 1342
PACKAGED PRODUCE	Average Number	0.98 202	0.99 730	0.99 932	0.99	0.99 637	0.99 767	1.00 105	1.00	1.00	0.99 437	0.99	0.99 2148
DAIRY PRODUCTS	Average Number	0.99 177	1.00	0.99 871	0.99	0.99 598	0.99 714	1.00 93	0.99 340	1.00 433	0.99 386	0.99	0.99 2018
EGGS	Average Number	1.00	0.98 602	0.99 753	0.95 91	0.98 517	0.98 608	0.97 89	0.99 317	0.99 406	0.98 331	0.98 1436	0.98
CEREALS, GRAINS	Average Number	0.99	0.99 713	0.99	0.97	0.99 588	0.99 710	0.98 96	1.00	0.99 425	0.98 414	0.99	0.99 2044
BAKERY PRODUCTS	Average Number	1.00	0.99 706	1.00	1.00 127	0.99 614	0.99 741	1.00	1.00 345	1.00	1.00 416	1.00 1665	1.00 2081
DINNER MIXTURES	Average Number	0.98	0.99 642	0.99 816	0.98 115	0.99	0.99 680	1.00 91	1.00 327	1.00 418	0.99 380	0.99 1534	0.99
DTHER FOODS	Average Number	1.00	1.00 723	1.00 921	0.99 126	0.99 614	0.99 740	1.00 103	1.00 341	1.00	1.00 427	1.00 1678	1.00 2105
ALL FOODS	Average Number	0.97 229	0.98 796	0.98	0.97 142	0.98	0.98 804	0.99 110	0.98	0.99	0.97 481	0.98 1816	0.98 2297

# Percentage Distribution of Retailers by Frequency of Shelf Restocking, Degree of Urbanization, Poverty Level and Store Type

## Supermarkets

Frequency of Shelf I	Restocking		Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
All day-As needed	Percent Number	12.06	40.05	38.55 61	49.95	45.90 63	46.26	32.88	26.29 14	26.92 16	34.34	40.25 137	39.81 147
Certain items as needed	Percent Number	22.13 2	12.41	12.94	21.20	8.69 12	9.80 15	16.89	5.53 3	6.62	20.63	9.90 34	10.70 40
Once a day	Percent Number	34.18	25.65 40	26.11 43	7.16	17.81 25	16.86 26	16.44	5.43 3	6.49	17.71	19.48 68	19.35 73
< Daily; > Weekly	Percent Number	31.63	15.34 24	16.21 27	21.68	24.04	23.83 36	33.78	50.29 27	48.70 29	27.32	24.09 84	24.33 92
Once a week	Percent Number	0	5.83 9	5.52 9	0	3.55	3.24	0	10.67	9.64	0	5.67 20	5.25 20
Less than weekly	Percent Number	0	0.72	0.68	0	0	0	0	1.80	1.63	0	0.60	0.56
First in/First out	Percent Number	0	0	0	0	0	0	0	0	0	0	0	0
Don't know	Percent Number	0	0	0	0	0	0	0	0	0	0	0	0
Total	Percent Number	100.00	100.00 153	100.00	100.00	100.00 138	100.00 152	100.00	100.00	100.00 60	100.00 29	100.00 345	100.00 374

# Percentage Distribution of Retailers by Frequency of Shelf Restocking, Degree of Urbanization, Poverty Level and Store Type

## Large Grocery Stores

Frequency of Shelf	Restocking		Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
All day-As needed	Percent Number	16.41 2	24.63	22.52 11	33.63	19.44	22.18 10	50.00	20.25	23.31 13	28.76	21.37 26	22.71
Certain items as needed	Percent Number	0	16.00	11.90 6	11.21	5.60 2	6.68 3	33.33 2	8.21	10.80	10.41	9.86 12	9.96
Once a day	Percent Number	15.93 2	5.55 2	8.21	0	5.57	4.49	0	7.80	6.99 4	7.65	6.45 8	6.67 10
< Daily; > Weekly	Percent Number	22.17	16.26	17.78	10.77	27.26	24.08 11	16.67	39.90 20	37.51 21	17.47	28.92 36	26.84
Once a week	Percent Number	29.75	27.01	27.71	44.40	39.45 14	40.40 18	0	21.83	19.58 11	28.16	28.55 35	28.48 43
Less than weekly	Percent Number	15.74 2	10.55	11.88	0	2.68	2.16	0	2.02	1.81	7.56 2	4.85	5.34
First in/First out	Percent Number	0	0	0	0	0	0	0	0	0	0	0	0
Don't know	Percent Number	0	0	0	0	0	0	0	0	0	0	0	0
Total	Percent Number	100.00	100.00 37	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00 28	100.00	100.00

. .

# Percentage Distribution of Retailers by Frequency of Shelf Restocking, Degree of Urbanization, Poverty Level and Store Type

#### Small Grocery Stores

Frequency of Shelf	Restocking		Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
All day-As needed	Percent Number	6.64 6	12.49 20	10.41 26	8.92 3	16.90 11	14.24	2.68	10.87	7.95	6.25 10	13.13	10.71 48
Certain items as needed	Percent Number	8.04	6.90 11	7.31	5.87	7.69	7.08	2.79	1.63	2.04	6.46 10	5.97 17	6.14 27
Once a day	Percent Number	4.26	11.09 18	8.67 22	2.82	5.95	4.90	10.86	9.55	10.02	5.39	9.62 28	8.14 37
< Daily; > Weekly	Percent Number	18.81 17	15.27 25	16.53 42	11.70	19.44 13	16.86 17	30.78 11	6.44	15.12 15	19.94 32	14.34 42	16.30 74
Once a week	Percent Number	35.64	34.72	35.05 89	61.78 21	30.10 20	40.66	50.22 18	62.03 39	57.81 57	44.16	39.44	41.10 187
Less than weekly	Percent Number	20.94	16.98 27	18.39 46	6.06 2	18.38 12	14.28	2.68	8.00 5	6.10	13.94 22	15.40	14.89
First in/First out	Percent Number	4.53 4	1.93	2.85	2.86	0	0.95	0	1.49	0.96	3.21	1.41	2.04
Don't know	Percent Number	1.14	0.62	0.80	0	1.55	1.03	0	0	0	0.66	0.69	0.68
Total	Percent Number	100.00 91	100.00 161	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00 290	100.00 451

244

# Percentage Distribution of Retailers by Frequency of Shelf Restocking, Degree of Urbanization, Poverty Level and Store Type

## Specialty Stores

Frequency of Shelf I	Restocking		Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
All day-As needed	Percent Number	16.03	41.58 33	34.36 38	36.37	39.10 25	38.71 29	0	33.50	30.31	20.16	39.74 64	35.52 73
Certain items as needed	Percent Number	18.78	5.06	8.94 10	8.76	7.99	8.10	0	5.69	5.15	15.63	6.27 10	8.28 17
Once a day	Percent Number	27.52 9	22.14	23.66 27	18.73	18.55 12	18.57 14	50.68 1	22.12	24.84	26.42	20.75 34	21.97
< Daily; > Weekly	Percent Number	3.10	7.55	6.29 7	18.61 2	6.12 4	7.91	49.32	16.86	19.95	8.69	8.01 13	8.16 17
Once a week	Percent Number	9.56 3	13.70 11	12.53 14	8.76	12.57 8	12.02	0	11.17	10.10 2	8.98	12.98 21	12.12 25
Less than weekly	Percent Number	9.53 3	4.99	6.27 7	8.76	3.25 2	4.04	0	0	0	8.95	3.77	4.89 10
First in/First out	Percent Number	9.41 3	2.56	4.50	0	0	0	0	5.33	4.83	6.80 3	1.87	2.93
Don't know	Percent Number	6.08 2	2.41	3.45	0	12.42	10.64	0	5.33 1	4.83	4.39 2	6.61 11	6.13 13
Total	Percent Number	100.00	100.00	100.00 112	100.00	100.00	100.00 75	100.00	100.00 18	100.00 20	100.00	100.00 162	100.00 207

.

## Percentage Distribution of Retailers by Frequency of Shelf Restocking, Degree of Urbanization, Poverty Level and Store Type

## Convenience Stores

Frequency of Shelf Restocking			Urban			Mixed			Rural		Total		
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
All day-As needed	Percent Number	14.43	13.97 33	14.04	8.65	12.91 29	12.21	4.25	10.94	9.21	10.04	13.17	12.63
Certain items as needed	Percent Number	2.14	8.10 19	7.21 20	0	5.95 13	4.97 13	12.74	6.09 4	7.82	3.40	6.96 36	6.35 40
Once a day	Percent Number	4.63 2	9.11 22	8.44 24	2.10	10.11 23	8.79 24	8.96 2	15.71 10	13.96 12	4.48	10.31 55	9.32
< Daily; > Weekly	Percent Number	32.50 14	13.68 33	16.49 47	21.42	11.57 26	13.20 36	17.28	17.42	17.39 15	24.95 28	13.23 70	15.23 98
Once a week	Percent Number	32.15	48.36 115	45.94 129	63.61 29	59.01 134	59.77 163	47.47	44.98 29	45.62 40	47.98 54	52.45 278	51.69 332
Less than weekly	Percent Number	9.59	5.13 12	5.80 16	2.10	0.44	0.71	9.31	4.85	6.01 5	6.50 7	3.12 16	3.70 23
First in/First out	Percent Number	2.14	1.25	1.38	0	0	0	0	0	0	0.84	0.58	0.62
Don't know	Percent Number	2.43	0.40	0.70	2.10	0	0.35	0	0	0	1.81	0.18	0.46
Total	Percent Number	100.00	100.00 238	100.00 281	100.00	100.00 226	100.00 272	100.00	100.00	100.00	100.00	100.00	100.00

246

## Percentage Distribution of Retailers by Frequency of Shelf Restocking, Degree of Urbanization, Poverty Level and Store Type

## Grocery/Gas Outlets

Frequency of Shelf Restocking		Urban			Mixed				Rural		Total			
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	
All day-As needed	Percent Number	0	26.80 14	22.21	8.87	18.69 14	17.40	11.05	8.47	8.98	7.34	17.27	15.61 37	
Certain items as needed	Percent Number	9.09	14.48	13.56	0	13.31 10	11.56 10	10.62	6.81 5	7.57	7.21	11.32 23	10.63 26	
Once a day	Percent Number	7.98	11.27	10.70	7.98	7.71	7.75	5.31	3.80	4.10	6.81 3	7.29	7.21	
< Daily; > Weekly	Percent Number	0	11.04	9.14	33.48	12.96	15.66 14	20.68	12.17	13.86 13	18.47	12.15 25	13.21 33	
Once a week	Percent Number	65.41 8	36.42 20	41.39 28	41.57	46.00 36	45.42 41	52.34 10	60.79 46	59.11 56	52.99 23	48.64 102	49.37 125	
Less than weekly	Percent Number	8.76	0	1.50	8.09	1.33	2.22	0	5.35	4.29	4.73	2.40	2.79	
First in/First out	Percent Number	8.76	0	1.50	0	0	0	0	2.61	2.09	2.46	0.93	1.18	
Don't know	Percent Number	0	0	0	0	0	0	0	0	0	0	0	0	
Total	Percent Number	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00 206	100.00 249	

## Percentage Distribution of Retailers by Frequency of Shelf Restocking, Degree of Urbanization, Poverty Level and Store Type

#### Other Stores

Frequency of Shelf Restocking		Urban			Mixed				Rural		Total		
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
All day-As needed	Percent Number	23.15	29.97 23	27.69	17.79	42.97	38.61 37	5.46	21.84	16.18	17.88	33.92 64	29.45 77
Certain items as needed	Percent Number	7.35	6.50 5	6.78 8	5.67	1.30	2.06	0	3.20	2.09	5.28	3.81	4.22 11
Once a day	Percent Number	19.87 8	17.90	18.56 22	24.40	15.38 12	16.94 16	16.83 3	15.32	15.84	20.18	16.44 31	17.48
< Daily; > Weekly	Percent Number	16.94	12.92	14.26 17	5.83	15.16	13.54 13	16.83 3	15.21	15.77	14.45	14.22 27	14.29 38
Once a week	Percent Number	14.83	22.77 18	20.12	17.79	18.98 15	18.77 18	55.27 10	29.46 10	38.38 20	24.82 19	22.35 43	23.04 62
Less than weekly	Percent Number	10.28	5.00	6.76 8	17.17	3.76	6.08 6	5.61	8.89 3	7.75	10.74	5.15 10	6.70 18
First in/First out	Percent Number	4.98	2.50 2	3.33	0	0	0	0	2.84	1.86	2.73	1.53	1.87
Don't know	Percent Number	2.59	2.44	2.49	11.34	2.46	3.99	0	3.24	2.12	3.94	2.58 5	2.96
Total	Percent Number	100.00	100.00 78	100.00	100.00	100.00 79	100.00	100.00	100.00	100.00 51	100.00	100.00 190	100.00 265

248

## Percentage Distribution of Retailers by Frequency of Shelf Restocking, Degree of Urbanization, Poverty Level and Store Type

## All Store Types

Frequency of Shelf Restocking		Urben			Mixed				Rural		Total			
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	
All day-As needed	Percent Number	12.48	24.34 192	21.65 221	17.56 25	26.84 183	25.28 208	9.09 10	16.23 57	14.59 67	13.19	23.72 432	21.55	
Certain items as needed	Percent Number	8.45 20	9.02 72	8.89 92	5.51 8	7.13	6.86 56	8.16	5.38 19	6.02 28	7.55	7.64	7.62	
Once a day	Percent Number	12.01 29	14.81 120	14.18 149	7.07	12.15 84	11.30 94	10.90	9.76 35	10.03 47	10.37 51	12.88 239	12.36 290	
< Daily; > Weekly	Percent Number	18.58 45	13.57 110	14.71 155	17.40 25	15.73 108	16.01 133	23.66 26	22.35 79	22.65 105	19.34 96	16.02 297	16.71 393	
Once a week	Percent Number	27.79	29.72 239	29.28 307	44.22 63	33.63 232	35.41 295	44.45	39.60 143	40.71 192	36.06 180	33.01 614	33.64 794	
Less than weekly	Percent Number	13.95 33	6.56 52	8.23 85	5.52 8	2.94 20	3.37 28	3.74	4.77	4.53 21	9.35 45	4.89	5.81 134	
First in/First out	Percent Number	4.62	1.26	2.02	0.68	0	0.11	0	1.34	1.03	2.50 12	0.81	1.16 27	
Don't know	Percent Number	2.12	0.72	1.04	2.03	1.59 11	1.67	0	0.57	0.44	1.64	1.01 19	1.14 27	
Total	Percent Number	100.00 240	100.00 801	100.00 1041	100.00 143	100.00	100.00	100.00	100.00 357	100.00 467	100.00 493	100.00 1844	100.00 2337	

#### Percentage Distribution of Retailers by Frequency of Shelf Restocking, Degree of Urbanization, Poverty Level and Product Availability

## High Availability of Items

Frequency of Shelf Restocking		Urban			Mixed				Rural		Total		
		High- poverty	Other	Totel	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
All day-As needed	Percent Number	0	38.33 55	36.63 55	45.58 10	44.98 65	45.06	37.46	30.09 20	31.46 26	35.36 16	39.46 140	39.02 156
Certain items as needed	Percent Number	13.14	13.72 20	13.70 21	18.06	8.96 13	10.12 17	18.81	4.41	7.09	17.53	10.11 36	10.91
Once a day	Percent Number	59.31 4	25.34 38	26.84	4.55	17.60 26	15.94 27	12.37	7.24	8.20	16.15	18.93 69	18.63 76
< Daily; > Weekly	Percent Number	27.55	16.67 25	17.15	18.18	22.77 33	22.19 37	25.08	50.76 34	45.97 38	22.13	25.37 92	25.02 102
Once a week	Percent Number	0	5.28 8	5.05	13.64	5.68	6.70 11	6.27 1	6.00 4	6.05 5	8.84	5.57 20	5.92 24
Less than weekly	Percent Number	0	0.67	0.64	0	0	0	0	1.51	1.23	0	0.56	0.50
First in/First out	Percent Number	0	0	0	0	0	0	0	0	0	0	0	0
Don't know	Percent Number	0	0	0	0	0	0	0	0	0	0	0	0
Total	Percent Number	100.00	100.00 147	100.00	100.00	100.00 145	100.00	100.00	100.00	100.00	100.00	100.00	100.00
## Percentage Distribution of Retailers by Frequency of Shelf Restocking, Degree of Urbanization, Poverty Level and Product Availability

Medium Availability of Items

Frequency of Shelf	Restocking		Urban			Mixed			Rural			Total	
		Nigh- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
All day-As needed	Percent Number	10.26	20.74	18.40 49	16.42	23.09	21.92	0	11.58 14	9.46	9.14	18.90 83	16.94 93
Certain items as needed	Percent Number	11.58 7	8.96 19	9.55 26	0	6.20 7	5.12	10.60	5.12	6.12 9	8.88	7.25	7.58
Once a day	Percent Number	3.17 2	11.36 24	9.53 26	0	7.07	5.83	10.46	9.78 12	9.90 15	4.22	9.86	8.73
< Daily; > Weekly	Percent Number	27.64	11.43 24	15.04	35.48	19.11 22	21.98 31	32.13	19.14 23	21.52	30.37 35	15.41 69	18.42 104
Once a week	Percent Number	27.46	37.86	35.54 96	43.93 11	41.90 48	42.26 59	46.82	52.68 65	51.60 78	35.54 41	42.81 192	41.35 233
Less than weekly	Percent Number	18.18 11	8.25 17	10.47	4.17	2.63	2.90	0	1.70 2	1.39	10.90 12	5.10	6.26 34
First in/First out	Percent Number	1.72	0.95	1.12	0	0	0	0	0	0	0.94	0.46	0.56
Don't know	Percent Number	0	0.45	0.35	0	0	0	0	0	0	0	0.22	0.17
Total	Percent Number	100.00	100.00 209	100.00 270	100.00	100.00 114	100.00 139	100.00 28	100.00	100.00	100.00	100.00	100.00

## Percentage Distribution of Retailers by Frequency of Shelf Restocking, Degree of Urbanization, Poverty Level and Product Availability

### Low Availability of Items

Frequency of Shelf	Restocking		Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
All day-As needed	Percent Number	13.79 23	21.42	19.33 117	11.46 11	21.66 92	19.83 103	6.06	13.99 23	11.80 27	11.65 38	20.35	18.27 247
Certain items as needed	Percent Number	7.13	7.49	7.39	4.10	6.75 28	6.27 32	4.51	5.97 10	5.57 13	5.77	6.95 71	6.67 90
Once a day	Percent Number	13.29 23	12.97 58	13.06 81	9.51 9	11.65 50	11.27 59	10.73	10.78 18	10.77 25	11.73 39	12.09 126	12.01 165
< Daily; > Weekly	Percent Number	14.94 26	13.57 61	13.94 87	12.48 12	12.42	12.43	19.67 13	13.14 22	14.95 35	15.15 51	13.04 136	13.54 187
Once a week	Percent Number	29.04	33.94 152	32.60 203	51.28 49	40.94 176	42.79 225	52.76 35	43.70 74	46.20 109	39.85 135	38.31 402	38.67 537
Less than weekly	Percent Number	12.99 22	7.70	9.15 56	7.14	4.02 17	4.58 24	6.27	8.33 14	7.76	10.05 33	6.31 65	7.20 98
First in/First out	Percent Number	5.86	1.82	2.93 18	1.01	0	0.18	6	2.86	2.07	3.37	1.25	1.75 24
Don't know	Percent Number	2.97	1.09	1.60	3.03	2.56	2.65 14	0	1.22	0.88	2.42	1.71 18	1.88
Total	Percent Number	100.00	100.00	100.00 617	100.00 96	100.00	100.00 523	100.00	100.00 168	100.00 234	100.00 334	100.00 1040	100.00 1374

87

### Percentage Distribution of Retailers by Level of Inventory of Non-Perishable Food Items, Degree of Urbanization, Poverty Level and Store Type

### Supermarkets

Inventory of			Urban			Mixed			Rural			Total	
Food Items		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
1-3 days	Percent Number	42.07	20.96	21.88 35	15.98	18.51 25	18.29 27	16.44	15.19	15.31 9	23.49	19.11 65	19.41 71
4-6 days	Percent Number	14.08	12.15 18	12.24	38.66	15.52 21	17.46 26	0	7.57	6.84	22.99	12.76	13.46
7-9 days	Percent Number	0	20.32 31	19.44	14.95	16.35 22	16.23 24	33.33 2	12.85	14.83	14.84	17.62	17.43
10-12 days	Percent Number	0	6.52 10	6.24 10	7.53	7.26	7.28	33.33 2	14.85	16.63 10	11.19	8.09 28	8.30 31
13-15 days	Percent Number	28.88	15.12 23	15.72 25	0	13.33 18	12.21	0	12.85	11.62	8.20 2	14.07 48	13.67 50
More than 15 days	Percent Number	14.97	24.93 38	24.50 39	22.89	29.04 40	28.52 43	16.89	36.69 20	34.78 21	19.29	28.34 98	27.73 103
No non- perishables	Percent Number	0	0	0	0	0	0	0	0	0	0	0	0
Total	Percent Number	100.00	100.00	100.00 159	100.00 13	100.00 136	100.00	100.00	100.00	100.00 60	100.00 26	100.00 342	100.00 368

#### Percentage Distribution of Retailers by Level of Inventory of Non-Perishable Food Items, Degree of Urbanization, Poverty Level and Store Type

#### Large Grocery Stores

Inventory of			Urban			Mixed			Rural			Total	
Food Items		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
1-3 days	Percent Number	0	7.90	5.98	0	11.24	9.07	17.56	2.08	3.73	3.77	6.61 8	6.10 9
4-6 days	Percent Number	7.42	11.07	10.19	21.98	2.71	6.43 3	33.33 2	4.10 2	7.23	17.68	5.88 7	8.00 12
7-9 days	Percent Number	34.02	27.27	28.91 14	22.71	19.30	19.96	0	31.61 15	28.23 15	23.07	26.61 32	25.98 38
10-12 days	Percent Number	8.14	10.81	10.16	22.12	22.09	22.09 10	16.22	16.70 8	16.65 9	14.39	16.44 20	16.07 24
13-15 days	Percent Number	8.45	7.70	7.88	22.42	13.84	15.50 7	16.22	33.24 16	31.41	14.63	19.48 24	18.61 28
More than 15 days	Percent Number	41.96	35.24 13	36.87 18	10.77	30.82 11	26.95 12	16.67	12.28	12.75	26.45	24.97 30	25.24 37
No non- perishables	Percent Number	0	0	0	0	0	0	0	0	0	0	0	0
Total	Percent Number	100.00 12	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00 27	100.00 121	100.00 148

254

## Percentage Distribution of Retailers by Level of Inventory of Non-Perishable Food Items, Degree of Urbanization, Poverty Level and Store Type

### Small Grocery Stores

Inventory of			Urban			Mixed			Rural			Total	
Food Items		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
1-3 days	Percent Number	23.55 19	16.86 27	19.11 46	2.95	1.53	2.00	0	6.35 4	4.09	13.72 20	11.20 32	12.05 52
4-6 days	Percent Number	20.37 17	8.28 13	12.35 30	5.90 2	9.15	8.08	5.58	9.34	8.00 8	13.86	8.70 25	10.45
7-9 days	Percent Number	22.24 18	26.08 41	24.79 59	33.80 11	27.91	29.85 29	30.56	23.78	26.20 26	26.63 40	26.00 74	26.21 114
10-12 days	Percent Number	4.78	3.25	3.77	11.95	3.10	6.02 6	19.78	2.99 2	8.98 9	9.78 15	3.16	5.41 24
13-15 days	Percent Number	10.20	14.59 23	13.11 31	24.31	32.43	29.76 29	24.91	22.42	23.31 23	16.61 25	20.24	19.00 83
More than 15 days	Percent Number	17.64	30.93 43	26.46	21.08	25.88 17	24.30 24	19.18	35.11 22	29.42 29	18.73 28	30.70 87	26.64 115
No non- perishables	Percent Number	1.22	0	0.41	0	0	0	0	0	0	0.68	0	0.23
Total	Percent Number	100.00 81	100.00 157	100.00	100.00	100.00	100.00 98	100.00	100.00	100.00	100.00 150	100.00 285	100.00 435

#### Percentage Distribution of Retailers by Level of Inventory of Non-Perishable Food Items, Degree of Urbanization, Poverty Level and Store Type

## Specialty Stores

Inventory of			Urban			Mixed			Rural			Total	
Food Items		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
1-3 days	Percent Number	25.66	19.72 15	21.42 23	22.35 2	17.29	17.91	0	17.55	15.79 3	23.82 10	18.52 29	19.64
4-6 days	Percent Number	0	3.91 3	2.79	0	0	0	0	5.95	5.35	0	2.58	2.04
7-9 days	Percent Number	6.69 2	22.11 17	17.70	10.74	17.57	16.74 12	49.32	11.90 2	15.65 3	9.44	19.22 30	17.16
10-12 days	Percent Number	9.32 3	2.57	4.50 5	0	1.47	1.29	0	5.95 1	5.35 1	6.98 3	2.49	3.44
13-15 days	Percent Number	3.20	10.28	8.26 9	11.32	8.01 5	8.42	0	0	0	4.73	8.28 13	7.54 15
More then 15 days	Percent Number	26.71	23.05 17	24.10 25	32.79	30.38 19	30.67 22	0	23.49	21.14	26.77	26.00	26.16 51
No non- perishables	Percent Number	28.42	18.36 14	21.23 23	22.79	25.28 16	24.98 18	50.68	35.17	36.72	28.25 12	22.90 36	24.02 48
Total	Percent Number	100.00 31	100.00	100.00	100.00	100.00	100.00 72	100.00	100.00 17	100.00 19	100.00 42	100.00 156	100.00 198

#### Percentage Distribution of Retailers by Level of Inventory of Non-Perishable Food Items, Degree of Urbanization, Poverty Level and Store Type

### Convenience Stores

Inventory of			Urban			Mixed			Rural			Total	,
Food Items		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
1-3 days	Percent Number	17.32	8.03 19	9.37 26	2.31	4.07	3.78 10	4.25	9.68	8.27	8.38	6.57 34	6.88 43
4-6 days	Percent Number	9.13	12.27	11.82	10.87	9.53 21	9.75 26	13.15	11.03	11.58 10	10.68	10.97 57	10.92
7-9 days	Percent Number	22.30 9	30.74 72	29.53 81	35.21 16	34.43 76	34.56 92	43.05 10	32.79 21	35.45 31	31.94 35	32.54 169	32.44 204
10-12 days	Percent Number	0	4.27	3.66	8.65	8.13 18	8.22 22	8.61	7.78	8.00 7	5.37	6.32 33	6.16 39
13-15 days	Percent Number	17.67	9.33 22	10.53 29	17.30 8	19.40 43	19.04 51	17.63	21.44	20.45	17.51 19	15.01 79	15.44 98
More than 15 days	Percent Number	33.59 13	34.88 80	34.69 93	25.66 12	23.54 52	23.90	13.32	17.28	16.25 14	26.12 28	28.00 143	27.68 171
No non- perishables	Percent Number	0	0.47	0.41	0	0.90	0.75	0	0	0	0	0.60	0.50
Total	Percent Number	100.00	100.00 233	100.00 273	100.00	100.00 221	100.00 267	100.00 23	100.00	100.00 87	100.00	100.00 518	100.00 627

257

#### Percentage Distribution of Retailers by Level of Inventory of Non-Perishable Food Items, Degree of Urbanization, Poverty Level and Store Type

### Grocery/Gas Outlets

Inventory of			Urban			Mixed			Rural			Total	
Food Items		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
1-3 days	Percent Number	19.40 2	13.49	14.45	17.07	8.04	9.24	0	4.14	3.28	10.02	8.20 16	8.50 20
4-6 days	Percent Number	0	7.27	6.09 4	0	12.20	10.57	15.51 3	9.94	11.10 10	6.97 3	10.06 20	9.54 23
7-9 days	Percent Number	26.87	29.65 16	29.20 19	41.46	24.94	27.14 24	31.80	21.47	23.62 21	33.27 14	25.04 50	26.43
10-12 deys	Percent Number	26.02 3	5.94	9.20	7.98	11.52	11.05 10	15.51 3	5.67	7.72	16.13 7	7.96	9.33 23
13-15 days	Percent Number	0	28.23 15	23.64	16.96 2	14.68 11	14.99 13	15.58 3	29.57 21	26.65 24	11.86	23.56 47	21.59 52
More then 15 days	Percent Number	19.04	15.41 8	16.00 10	16.52 2	28.62 22	27.01 24	21.60	29.21 21	27.62	19.47 8	25.18 51	24.22 59
No non- perishables	Percent Number	8.67	0	1.41	0	0	0	0	0	0	2.29	0	0.39
Total	Percent Number	100.00	100.00 53	100.00	100.00 12	100.00 76	100.00 88	100.00 19	100.00 71	100.00 90	100.00 42	100.00 200	100.00 242

258

## Percentage Distribution of Retailers by Level of Inventory of Non-Perishable Food Items, Degree of Urbanization, Poverty Level and Store Type

#### Other Stores

Inventory of			Urban			Mixed			Rural			Total	
Food Items		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
1-3 days	Percent Number	27.64	19.51 15	22.26	16.78	11.89	12.80	21.25	6.24 2	11.61	23.64 18	14.15 26	16.88
4-6 days	Percent Number	5.08 2	6.49 5	6.02 7	11.18	4.02	5.36	5.31	12.12	9.69	6.53 5	6.47 12	6.49 17
7-9 days	Percent Number	17.39	23.77 18	21.62 25	22.59	15.86 12	17.12	0	11.93	7.66	14.44	18.54 34	17.36
10-12 days	Percent Number	2.52	1.30	1.71	5.89	9.42	8.76	26.20	5.96	13.21	8.92 7	5.38 10	6.40 17
13-15 days	Percent Number	2.52	7.71	5.96 7	11.04	11.89	11.73 11	31.59 6	27.29	28.83 15	11.38 9	12.78 24	12.37 33
More than 15 days	Percent Number	17.83	17.16	17.39 20	10.74	24.89 19	22.25 21	5.17	24.25	17.42	13.20 10	21.50 40	19.11 50
No non- perishables	Percent Number	27.01	24.04	25.05 30	21.78	22.03 17	21.99 21	10.48	12.20	11.59 6	21.89 17	21.19 40	21.39 57
Totel	Percent Number	100.00	100.00 77	100.00 117	100.00	100.00	100.00	100.00	100.00	100.00 52	100.00 77	100.00 186	100.00 263

#### Percentage Distribution of Retailers by Level of Inventory of Non-Perishable Food Items, Degree of Urbanization, Poverty Level and Store Type

## All Store Types

Inventory of			Urban			Mixed			Rural			Total	
Food Items		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
1-3 days	Percent Number	22.56 50	14.93 118	16.59 168	7.99	9.70 65	9.42 76	6.34 7	7.83	7.48	14.67	11.68 210	12.28 278
4-6 days	Percent Number	10.88 25	9.68 76	9.94 101	11.38 16	9.12	9.50 77	9.91 11	8.86 31	9.10 42	10.80	9.32 168	9.62 220
7-9 days	Percent Number	19.36 43	26.03 205	24.58 248	29.54 41	24.58 165	25.41 206	26.97 30	22.66 79	23.68 109	24.03 114	24.86	24.69 563
10-12 days	Percent Number	5.19 12	4.47	4.63 47	9.22 13	8.13 55	8.31 68	18.01 20	8.57 30	10.79 50	9.27 45	6.58 120	7.13 165
13-15 days	Percent Number	9.19 20	12.64	11.89 120	16.46 23	16.68 112	16.64 135	20.69 23	23.05 81	22.49 104	13.91 66	16.08 293	15.64 359
More than 15 days	Percent Number	23.12	27.98 217	26.93 267	21.12 30	26.64 180	25.71 210	15.38 17	26.14 92	23.61 109	20.79	27.14 489	25.85 586
No non- perishables	Percent Number	9.70 22	4.27	5.45 56	4.28	5.16	5.01 41	2.69	2.89 10	2.84	6.54 31	4.34 79	4.79 110
Total	Percent Number	100.00 222	100.00 785	100.00 1007	100.00	100.00 673	100.00 813	100.00 111	100.00 350	100.00 461	100.00 473	100.00 1808	100.00 2281

260

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

### Supermarkets

.

Food Product			Urban	1					Mixed	1		
	High-pov	erty	Othe	r	Tota	ι	High-pov	erty	Othe	r	Tota	ι
	Mean	N	Mean	N	Mean	N	Mean	N	Hean	N	Mean	N
FRSH-Ground Beef	67.31	9	74.06	148	73.69	157	73.57	14	73.68	126	73.67	140
FRSH-Pork Chops	57.68	9	66.77	146	66.26	155	61.09	14	65.47	125	65.04	139
FRSH-Bacon	26.68	8	29.08	151	28.96	159	27.63	14	26.83	137	26.90	151
FRSH-Frankfurters	39.97	7	36.79	151	36.92	158	37.15	14	41.47	131	41.07	145
FRSN-Whole Chicken	83.40	9	61.81	143	63.05	152	51.90	12	56.05	120	55.68	132
FRSH-Fish Filets	34.20	3	42.33	128	42.15	131	25.51	5	46.64	92	45.59	97
CAN-Tuna	14.51	8	11.17	153	11.32	161	10.89	14	11.11	138	11.09	152
FRSH-Apples	21.96	8	22.03	148	22.02	156	24.59	14	22.11	130	22.34	144
FRSH-Bananas	20.80	9	23.66	150	23.51	159	21.35	14	22.46	132	22.36	146
FRSH-Lettuce	15.71	8	22.82	138	22.44	146	29.72	10	20.87	122	21.51	132
FRSH-Oranges	9.33	7	10.34	142	10.30	149	9.51	13	10.36	124	10.29	137
FRSH-Potatoes	13.85	9	15.10	152	15.03	161	14.94	14	15.12	133	15.10	147
FRSH-Tomatoes	12.70	9	12.48	151	12.49	160	10.36	14	12.48	130	12.28	144
FROZ-Grange Juice	53.61	9	47.68	149	48.01	158	45.54	14	46.58	132	46.49	146
FROZ-Potatoes, White	1.15	9	1.74	150	1.71	159	1.80	14	1.41	133	1.44	147
CAN-Applesauce	5.78	9	5.44	151	5.46	160	6.85	14	5.23	138	5.38	152
CAN-Corn	27.40	9	24.97	153	25,10	162	20.57	14	23.19	137	22.96	151
CAN-Apple Juice	9.53	9	8.11	137	8,19	146	7.34	14	8.01	131	7.95	145
DRY-Potato Chips	12.96	9	11.74	153	11.81	162	12.24	14	11.19	138	11.28	152
FRSH-Cheddar Cheese	30.69	9	27.04	151	27.24	160	28.02	14	27.30	136	27.36	150
FRSH-Margarine, Stick	8,10	9	8.40	151	8.39	160	6.45	14	8.18	136	8.03	150
FRSH-Milk Whole White	71.90	9	73.28	154	73.20	163	70.39	14	73.23	137	72.97	151
FROZ-Ice Cream	2.79	7	2.51	148	2.52	155	2.18	14	2.17	135	2.17	149
FRSH-Foos	16.63	9	20.66	154	20.44	163	16.84	13	18.06	136	17.96	149
DRY-Flour Whole Wheat	7.62	6	5.03	138	5.14	144	4.76	11	4.71	126	4.72	137
DRY-Spachetti	10.67	õ	9.85	153	9.89	162	9.56	14	10.14	138	10.09	152
DRY-White Rice	6.80	9	6.28	154	6.31	163	6.83	14	7.76	136	7.68	150
DRY-Corn Flakes	34.16	9	32.20	151	32.31	160	23.27	14	29.38	128	28.80	142
EPSN-Rread	28.89	9	27.18	150	27.28	159	21.98	14	25.31	137	25.01	151
DPY-Crackers	34.42	9	35.45	151	35.40	160	29.09	14	35.07	138	34.53	152
EPOZ-Pot Die	1.60	ó	1.31	146	1.32	153	1.13	14	1.32	132	1.30	146
FROZ-Dizza	8.48	8	8.24	145	8.25	153	7.39	14	8.04	133	7.98	147
CAN-Macaroni	1.44	õ	1.33	152	1.34	161	1.15	14	1.31	133	1.30	147
DRY-Nacaroni and Chasse	6.10	ó	3.14	150	3.19	159	2.77	14	3.50	137	3.43	151
CAN-Cateuro	3.83	ó	4.36	154	4.33	163	2.88	14	3.66	138	3.59	152
CAN-Descut Butter	0.21	ó	9.38	154	9.37	163	16.82	14	8.96	137	9.67	151
CAN-Chicken Sour	4 30	ó	6.05	152	4.07	161	3.81	16	4.10	134	4.08	148
CAN-Specketti Sauce	6.23	8	4.10	151	4.20	159	3.45	14	3.93	135	3.88	149
CAN-Spect Drinke Colo	25 20	0	22.56	154	22.70	163	21.88	14	23.32	137	23.20	151
CAN-SOIL Drinks, Cola	14 47	7	13 77	140	13 80	156	13.07	16	14.27	136	14.24	150
DRT-A & A type candy	12.00	0	12 20	154	12 20	163	11 24	16	11.53	136	11.50	150
DRT-Sugar	16.09	~	12.20	150	12 27	150	10.00	14	11 42	138	11 38	152
DRY-Coffee	15.22	Y	12.10	150	12.21	124	10.99	14	11.46	130	11.30	126

96

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Product			Rural	-			1		Total			
	High-pove	erty	Othe	r	Tota	ι	High-pov	erty	Othe	r	Tota	ι
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
FRSN-Ground Beef	69.18	6	79.20	48	78.12	54	70.68	29	74.67	322	74.35	351
FRSH-Pork Chops	64.16	6	64.40	46	64.37	52	60.62	29	65.93	317	65.50	346
FRSH-Bacon	24.06	6	29.22	54	28.72	60	26.60	28	28.21	342	28.09	370
FRSH-Frankfurters	38.36	6	42.72	51	42.28	57	38.18	27	39.49	333	39.39	360
FRSH-Whole Chicken	55.24	6	60.84	45	60.20	51	63.44	27	59.47	308	59.78	335
FRSH-Fish Filets	42.26	3	44.60	18	44.28	21	32.43	11	44.13	238	43.64	249
CAN-Tuna	10.16	6	13.27	54	12.97	60	11.80	28	11.47	345	11.49	373
FRSH-Apples	27.90	6	22.41	49	22.99	55	24.51	28	22.11	327	22.30	355
FRSH-Bananas	19.51	5	22.87	50	22.58	55	20.85	28	23.08	332	22.91	360
FRSH-Lettuce	20.90	6	23.59	48	23.30	54	22.77	24	22.18	308	22.22	332
FRSH-Oranges	11.10	6	10.69	46	10.74	52	9.82	26	10.40	312	10.36	338
FRSH-Potatoes	14.08	6	16.38	52	16.15	58	14.42	29	15.30	337	15.23	366
FRSH-Tomatoes	13.23	6	12.79	51	12.84	57	11.69	29	12.53	332	12.46	361
FROZ-Orange Juice	45.80	6	49.43	51	49.06	57	48.18	29	47.51	332	47.57	361
FROZ-Potatoes, White	1.29	6	1.97	53	1.90	59	1.49	29	1.65	336	1.63	365
CAN-Applesauce	4.63	6	6.12	55	5.98	61	6.06	29	5.46	344	5.51	373
CAN-Corn	21.50	6	24.84	53	24.51	59	22.94	29	24.25	343	24.15	372
CAN-Apple Juice	6.41	6	9.96	50	9.59	56	7.85	29	8.35	318	8.31	347
DRY-Potato Chios	12.31	6	11.31	55	11.41	61	12.49	29	11.46	346	11.54	375
FRSH-Checklar Cheese	29.98	6	29.47	53	29.52	59	29.27	29	27.51	340	27.64	369
FRSH-Margarine, Stick	6.25	6	8.94	52	8.67	58	6.94	29	8.40	339	8.29	368
ERSH-Hilk Whole White	66.89	6	73.26	55	72.65	61	70.16	29	73.25	346	73.02	375
SPOZ-1ce Cream	2.08	6	2.67	53	2.62	59	2.32	27	2.40	336	2.40	363
EDEN-Egge	14.66	6	19.23	55	18.80	61	16.32	28	19.43	345	19.20	373
hev-flour Uhole Uheat	4.78	š	4.81	50	4.81	55	5.57	22	4.87	314	4.92	336
DRY-Spachatti	0.96	6	11.02	55	10.92	61	10.00	29	10.15	346	10.14	375
DEV-Ubite Dice	6.48	6	9.05	53	8.80	59	6.75	29	7.28	343	7.24	372
DRY-Corp Slakes	27.16	6	35.35	51	34.52	57	27.55	29	31.60	330	31.29	359
EPCH-Bread	21.30	6	28.77	54	28.06	60	24.08	29	26.69	341	26.49	370
DBY-Concharg	30.50	6	41.68	55	40.62	61	31.10	29	36.27	344	35.88	373
EPOZ-Dat Die	0.95	6	1.38	47	1.34	53	1.18	29	1.33	323	1.32	352
FROZ-POL FIE	8.06	6	9.25	50	9.13	56	7.85	28	8.31	328	8.28	356
PRUZ-PIZZO	1 14	6	1.30	52	1.36	58	1.24	29	1.33	337	1.33	366
DRY-Necesoni and Cheese	2 67	6	3.08	55	3.85	61	3.18	29	3.41	342	3.39	371
CAN-Cataroni and cheese	2.80	6	6 31	54	4.17	60	3.17	29	4.08	346	4.01	375
CAN-Catsup	8 26	4	0 40	55	9.56	61	12.65	29	9.27	346	9.52	375
CAN-Peanut Butter	6.20	4	4 44	55	4.62	61	4.13	29	6.16	341	4.16	370
LAN-Unicken Soup	7.74	4	4 72	52	4 50	58	3.67	28	4.17	338	4.13	366
CAN-Spagnetti sauce	20.57	4	27 04	55	27 24	61	22.67	20	23.69	346	23.62	375
LAN-SOTT Drinks, Lota	20.33	4	15 10	57	15 03	50	16 00	27	16 10	338	16.17	365
DRT-M & M Type candy	10.00	0	11 25	55	11 13	61	11.26	20	11.79	345	11.75	374
prt-sugar	10.00	0	12.07	85	12 73	41	12 42	20	11 05	343	11 98	372
DRY-Coffee	11.55	0	12.0/	22	12.16	01	16.96	67	11.73	343	11.70	212

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

					.,							
Food Product			Urban						Nixed			
	High-pove	erty	Other	-	Tota	L	High-pov	erty	Other		Tota	L
	Mean	N	Hean	N	Mean	N	Mean	N	Mean	N	Mean	N
FRSH-Ground Beef	87.94	7	86.46	23	86.81	30	86.36	8	81.76	32	82.65	40
FRSN-Pork Chops	54.58	8	69.71	19	65.27	27	65.28	7	60.69	27	61.60	34
FRSH-Bacon	33.88	11	34.39	30	34.25	41	34.24	9	33.38	37	33.54	46
FRSN-Frankfurters	45.82	7	49.08	27	48.42	34	43.52	7	48.34	26	47.36	33
RSH-Whole Chicken	44.75	5	78.26	16	70,18	21	60.06	5	65.02	23	64.16	28
FRSH-Fish Filets	30.92	4	32.62	3	31.66	7	32.54	1	40.86	2	38.03	3
CAN-Tuna	14.57	11	16.19	29	15.76	40	14.72	Ó	13.97	37	14.11	46
PSH-Annies	24.81	7	26.95	24	26.47	31	27.64	8	24.76	31	25 33	30
PSH-Rananac	21 43		21 72	25	21 65	33	24 60	8	24 03	30	24 86	38
EPSN-1 attuce	20.00	7	31 11	16	27 45	21	23 30	5	22 44	21	22 62	26
IPSN-Certuce	8 18	1	11 67	10	11 06	23	0.23	2	0 30	28	0 20	75
CCU-Detates	11 78		18 55	27	16 07	75	17 28		17.00	27	17 14	15
Ren-Foldloes	14 01		16.33	27	16.73	25	11 12	7	12 10	75	12 02	12
Ron-Tomatoes	49.71		47 17	21	47.12	30	49.40		50 14	33	12.02	46
RUZ-Orange Juice	00.21	10	07.13	61	2 75	20	2.44	0	3 34	33	00.00	21
RUZ-Potatoes, white	2.21	10	2.43	19	2.33	27	6.00	0	2.20	24	2.33	44
AN-Applesauce	0.23	10	1.91	21	8.04	31	20.0/	-	27.72	31	27.91	44
AN-Corn	32.19	11	34.42	22	34.05	44	20.21	0	21.12	20	27.01	40
AN-Apple Juice	15.48	0	12.91	22	13.03	28	12.08	y	10.45	29	10.85	30
RY-Potato Chips	14.40	11	14.88	35	14.78	44	15.21	9	13.37	38	13.71	4/
RSH-Cheddar Cheese	33.43	9	40.05	28	38.47	37	34.11	9	30.73	34	31.41	43
RSH-Margarine, Stick	11.51	10	12.13	28	11.97	38	8.77	1	9.87	34	9.69	41
RSH-Milk, Whole White	73.77	11	73.40	33	73.49	44	80.23	9	74.70	39	75.70	48
ROZ-Ice Cream	3.04	8	4.26	28	3.99	36	2.78	8	2.86	35	2.85	43
RSH-Eggs	21.45	12	21.73	32	21.66	44	19.32	8	20.33	38	20.16	46
RY-Flour, Whole Wheat	3.82	3	5.90	10	5.41	13	5.40	1	5.33	17	5.34	18
RY-Spaghetti	14.51	11	15.20	33	15.03	44	15.92	9	13.00	39	13.53	48
RY-White Rice	8.00	13	9.06	35	8.78	48	16.79	9	9.58	39	10.89	48
RY-Corn Flakes	51.66	11	55.41	31	54.45	42	45.18	9	42.47	36	43.00	45
RSH-Bread	33.15	11	35.59	30	34.95	41	22.95	9	33.14	39	31.29	48
RY-Crackers	50.85	11	67.31	31	63.08	42	37.57	8	45.37	39	44.09	47
ROZ-Pot Pie	1.63	8	1.80	18	1.75	26	1.49	7	1.49	30	1.49	37
R07-P1778	10.26	9	8.82	11	9.46	20	9.69	6	9.16	29	9.25	35
AN-Nacaroni	1.75	10	1.99	27	1.93	37	1.92	9	1.69	34	1.73	43
RY-Macaroni and Cheese	5.31	11	6.01	29	5.82	40	5.43	9	4.75	38	4.88	47
AN-Catsuo	5.54	11	5.99	32	5.88	43	4.99	8	4.79	38	4.82	46
AN-Pearut Rutter	11.95	10	13.69	31	13.28	41	12.27	9	10.51	39	10.83	48
AN-Chicken Soun	5.64	10	6.16	31	6.03	41	4.84	8	5.23	39	5.17	47
AN-Spachetti Sauce	4.54	11	5.58	20	5.85	60	6.84	0	6.06	30	6.20	48
AN-Soft Deinke Cole	20 67	12	31 03	34	31.35	46	28.64	ó	33.45	39	32.58	48
BY-M & M time conti	10.70	10	10 74	25	10 77	75	18 00	ó	18,12	38	18,28	67
RI-H & H type candy	17.67	11	14 25	35	15 61	46	12 70	7	12 94	30	12 90	45
RT-Sugar	13.33	17	10.23	33	19.40	14	14 97	ó	13 07	39	14 51	47
KT*LOTTER	10.00	12	10.90	34	10.07	40	10.0/	7	13.71	20	19.21	41

#### Large Grocery Stores

263

## Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

Large Grocery Stores

Food Product			Rural						Total			
	High-pov	erty	Othe	r	Tota	ι	High-pov	erty	Othe	r	Tota	ι
	Mean	N	Hean	N	Mean	N	Mean	N	Mean	N	Mean	N
FRSH-Ground Beef	77.50	6	82.89	45	82.28	51	84.44	21	83.38	100	83.56	121
FRSH-Pork Choos	72.05	6	67.75	42	68.27	48	62.92	21	66.04	88	65.45	109
FRSH-Bacon	20.87	6	29.77	50	28.85	56	31.08	26	32.12	117	31.94	143
FRSH-Frankfurters	37.63	6	54.04	44	52.14	50	42.62	20	51.10	97	49.69	117
FRSH-Whole Chicken	53.38	6	66.44	34	64.55	40	52.52	16	68.66	73	65.81	89
EDSH-Fich Filets	0	Ő	49.07	10	49.07	10	31.23	5	44.54	15	41.14	20
CAN-TIMP	10.62	6	13.03	50	12.78	56	13.73	26	14.14	116	14.07	142
SPSN-Annias	20.83	6	25.69	45	25.14	51	24.75	21	25.71	100	25.55	121
EREN-Repered	21.86	6	26.07	46	23.83	52	22.67	22	23.72	101	23.54	123
rkan-bananas	10 58	5	23 54	42	23 15	47	20.89	17	24.67	77	23.99	94
FRSH-Lettuce	0.22	-	11 /3	40	11 10	45	8.05	16	10.80	87	10.52	103
FKSK-Oranges	12.40	2	1/ 80	40	16 66	55	13 84	22	16.51	113	16.08	135
FRSH-POTATOES	12.09	2	19.07	47	12 62	56	12.05	21	12 01	110	12.01	131
FRSH-Tomatoes	12.29	0	16.07	40	5/ 50	57	61 14	22	50 42	101	50 78	123
FROZ-Orange Juice	42.48	0	20.07	41	24.20	22	2.04	24	2 20	102	2 24	126
FROZ-Potatoes, White	0.89	0	2.23	49	2.11	22	2.04	27	4.05	117	6.24	176
CAN-Applesauce	4.54	0	3.74	49	5.01	22	0.24	23	28 70	113	20.00	1/4
CAN-Corn	23.78	6	25.69	50	25.49	20	29.20	0	20.19	121	20.01	140
CAN-Apple Juice	7.01	6	10.31	37	9.80	45	111.09	41	11.05	00	17.74	1/7
DRY-Potato Chips	13.31	6	11.69	50	11.85	20	14.42	20	13.11	121	13.34	147
FRSH-Cheddar Cheese	30.03	6	29.96	50	29.97	56	32.85	24	32.19	112	32.80	130
FRSH-Margarine, Stick	6.32	6	11.03	49	10.54	55	9.37	23	10.96	111	10.70	134
FRSH-Milk, Whole White	67.61	6	76.64	49	75.69	55	74.57	26	75.11	121	15.02	14/
FROZ-Ice Cream	2.00	6	2.50	50	2.44	56	2.67	22	3.06	113	3.00	135
FRSH-Eggs	15.66	6	18.81	49	18.48	55	19.51	26	20.10	119	20.00	145
DRY-Flour, Whole Wheat	5.25	3	5.12	26	5.13	29	4.63	7	5.34	53	5.26	60
DRY-Spaghetti	10.86	6	12.72	50	12.53	56	14.17	26	13.50	122	13.61	148
DRY-White Rice	9.83	6	10.01	47	9.99	53	11.13	28	9.59	121	9.88	149
DRY-Corn Flakes	29.92	6	34.37	49	33.90	55	44.58	26	42.66	116	43.00	142
EPSH-Bread	20.58	6	28.08	49	27.29	55	26.87	26	31.71	118	30.85	144
DRY-Crackers	33.27	6	39.92	50	39.23	56	42.59	25	48.97	120	47.89	145
EPO7-Dot Pie	1.18	6	1.80	47	1.73	53	1.46	21	1.70	95	1.66	116
EBOZ-Diaza	8.61	6	9.27	49	9.20	55	9.64	21	9.18	89	9.26	110
CAN-Necesso	1.60	6	1.56	48	1.57	54	1.78	25	1.71	109	1.72	134
DRY Macaroni and Chasta	4 00	6	6.16	49	4.15	55	5.08	26	4.83	116	4.87	142
CAN-Catour	3 17	6	4.09	50	4.00	56	4.81	25	4.83	120	4.83	145
CAN-Latsup	8 00	6	0.77	50	9.68	56	11.35	25	11.06	120	11.10	145
CAN-Peanut Butter	4.24	Ă	4 70	50	4.65	56	5.04	24	5.26	120	5.22	144
LAN-LITICKEN SOUP	7.84	4	4 08	40	4.86	55	6.05	26	5.49	117	5.59	143
CAN-Spagnetti Sauce	3.00	0	28 47	50	28 41	56	28.66	27	31.09	123	30.66	150
CAN-SOTE DETINKS, COLA	20.33	0	16.05	10	16 06	55	18 64	25	17.60	112	17.79	137
DRY-M & M type candy	10.07	0	11 50	50	11 53	54	12 67	24	13.36	124	13.26	148
DRY-Sugar	10.98	0	11.39	50	17 7/	56	14 40	27	15 17	122	15.41	149
DRY-Coffee	12.51	0	13.44	20	13.34	20	10.49	61	13.17	166	12.41	147

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

Food Product			Urban	1					Mixed	1		
	High-pove	erty	Othe	r	Tota	ι	High-pov	erty	Othe	r	Tota	ι
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Hean	N
FRSN-Ground Beef	89.08	14	95.24	20	92.73	34	74.86	3	91.68	13	88.61	16
FRSH-Pork Chops	64.77	22	65.15	16	64.93	38	63.28	2	72.98	7	70.92	9
FRSH-Bacon	39.62	68	42.01	98	41.05	166	41.27	19	37.60	45	38.67	64
FRSH-Frankfurters	43.97	50	50.70	81	48.16	131	47.26	13	45.95	23	46.41	36
FRSH-Whole Chicken	59.53	8	66.60	11	63.57	19	45.95	1	50.60	3	49.48	4
FRSH-Fish Filets	55.95	3	32.31	4	42.15	7	14.07	1	0	õ	14.07	1
CAN-Turna	17.77	75	17.95	121	17.88	196	17.37	22	17.91	53	17.75	75
se look-H29	30.20	10	26.44	46	27.54	65	24.50	7	20.33	15	27.85	22
FPSH-Rananas	23.73	40	25.17	53	24.55	03	24.45	7	25.07	21	24.92	28
- Watter attice	31.01	17	23 80	48	25 01	65	17.12	2	26.56	12	25 25	14
Non-Lecture	13 34	21	11 67	42	12 24	63	10 40	2	12 67	11	12.08	15
COCU-Dotatooo	20 30	52	10 01	77	20 10	120	22.45	16	18 44	30	10 81	16
EDCH-Tomotooo	12 10	10	12 78	4	12 49	112	12 45	11	17 84	24	17.01	75
Ron-Tomacoes	94 45	90	12.30	7/	12.00	116	12.05		47 44	10	7/ 50	20
ROZ-Orange Juice	00.03	20	03.00	24	05.00	00	07.33	× ×	2.00	25	2.05	20
RUZ-POTATOES, White	2.93	51	3.14	21	2.04	154	2.03	45	2.90	10	2.93	34
CAN-Applesauce	9.29	01	10.12	477	77.60	100	7.05	12	0.90	49	0.23	04
CAN-CORN	31.42	10	37.02	133	31.33	209	33.24	CY	33.14	20	33.17	0/
CAN-Apple Juice	10.0/	44	14.90	83	12.24	12/	15.81	10	14.20	61	14.04	21
DRY-Potato Chips	15.90	80	10.53	145	10.30	229	18.13	32	15.95	03	10.00	55
RSN-Cheddar Cheese	37.06	54	39.32	89	38.48	143	34.88	17	34.46	35	34.60	52
RSN-Margarine, Stick	14.89	69	14.28	93	14.53	162	14.55	17	12.94	41	13.40	58
FRSH-Milk, Whole White	79.06	81	75.64	138	76.89	219	87.22	27	82.83	59	84.18	86
ROZ-Ice Cream	4.23	56	4.72	108	4.55	164	4.17	20	3.64	46	3.80	66
RSH-Eggs	22.51	80	22.95	133	22.79	213	22.53	2()	21.30	52	21.63	72
<b>DRY-Flour</b> , Whole Wheat	5.49	14	6.12	28	5.91	42	6.13	1	5.81	10	5.84	11
)RY-Spaghetti	16.78	81	16.03	134	16.31	215	17.98	27	18.45	60	18.31	87
RY-White Rice	11.37	84	11.68	145	11.56	229	13.20	26	18.89	58	17.16	84
RY-Corn Flakes	56.32	75	63.69	114	60.81	189	68.75	23	69.55	45	69.29	68
RSH-Bread	45.36	81	46.43	126	46.02	207	36.43	27	38.53	62	37.91	89
RY-Crackers	83.36	81	81.70	126	82.34	207	83.85	27	67.44	59	72.49	86
ROZ-Pot Pie	2.00	26	1.99	35	1.99	61	1.73	4	2.08	15	2.01	19
ROZ-Pizza	12.41	30	12.90	34	12.67	64	12.41	6	11.67	24	11.82	30
AN-Macaroni	2.17	71	2.16	108	2.16	179	2.39	22	1.81	43	2.00	65
RY-Nacaroni and Cheese	7.12	74	7.21	114	7.17	188	6.66	25	6.98	54	6.88	79
AN-Catsup	7.20	83	7.64	142	7.48	225	7.45	29	6.95	64	7.10	93
AN-Descut Butter	16.36	70	15.67	129	15.18	208	12.51	27	14.58	56	13.92	83
AN-Chicken Soun	6.44	79	6.39	117	6.41	196	8,18	25	6.06	59	6.68	84
AN-Songhatti Sauca	7.50	73	7.70	116	7.66	189	8.06	18	7.92	49	7.96	67
AN-Soft Deinke Cole	34 78	00	38 23	157	36.00	247	39.72	33	40.03	64	39.93	97
DV-M & M tume condu	25 08	50	25 05	08	25 30	154	22.46	26	22 72	53	22.63	79
RY-Sumon	16 84	88	17 52	147	17 27	235	17 78	20	19.94	61	19.26	90
RT-Sugar	27.02	40	21 21	124	21 85	107	18 22	10	20 53	56	10.05	75
KT-LOTTRE	23.02	09	61.61	169	21.05	193	10.26	17	20.33	50	17.75	13

#### Small Grocery Stores

265

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

Small Grocery Stores

Food Product			Rural						Total			
	High-pove	erty	Other	r	Tota	ι	High-pov	erty	Othe	r	Tota	ι
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
FRSH-Ground Beef	95.93	7	91.15	19	92.41	26	89.30	24	92.87	52	91.76	76
FRSH-Pork Chops	81.98	2	73.61	16	74.53	18	65.95	26	69.95	39	68.36	65
FRSH-Bacon	37.81	21	38.88	50	38.57	71	39.56	108	40.22	193	39.98	301
FRSH-Frankfurters	44.23	20	52.67	27	49.13	47	44.53	83	50.28	131	48.08	214
FRSH-Whole Chic en	65.93	1	58,11	9	58.87	10	58.89	10	61.25	23	60.52	33
FRSH-Fish Filets	0	Ó	42.49	2	42.49	2	45.85	4	35.54	6	39.57	10
CAN-Tuna	18.71	29	15.86	56	16.82	85	17.91	126	17.45	230	17.61	356
COCH-Apples	21.05	8	26.11	30	25.07	38	27.05	34	26.80	91	26.87	125
EREN-Receiver	22 67	ŏ	22.67	32	22.67	41	23.65	56	26.42	106	24.15	162
FRSN-bananas	10 01		24 78	17	23 54	23	28.04	25	24.43	77	25.31	102
PRSN-Lettuce	12.15	1	11 28	17	11 33	18	12 90	26	11.73	70	12.05	96
rksh-uranges	16.13	21	14.05	17	16 78	44	10 84	80	18 70	150	10 18	230
PRSH-Potatoes	10.44	41	10.73	43	17 9/	17	17.04	71	12 08	110	13 08	100
PRSH-TOMATOES	19.99	16	13.01	24	70 /2	43	00.04	17	72 04	80	78 12	132
FROZ-Orange Juice	93.81	0	04.97	20	10.42	40	00.00	43	2 02	118	2.81	182
FROZ-Potatoes, White	2.80	18	2.02	46	2.07	00	2.01	04	0.17	100	2.01	207
CAN-Applesauce	6.84	25	7.43	24	1.20	11	75 30	174	75 70	250	75 22	294
CAN-Corn	30.79	31	32.26	59	31.70	90	35. 19	130	35.38	250	33.20	2/7
CAN-Apple Juice	13.03	22	12.84	37	12.91	59	150	82	14.29	101	14.71	243
DRY-Potato Chips	16.02	35	14.34	63	14.93	98	16.38	155	15.90	209	10.07	422
FRSH-Cheddar Cheese	35.54	14	33.66	45	34.09	59	36.39	65	30.8/	109	30./1	20%
FRSH-Margarine, Stick	12.74	21	11.88	47	12.14	68	14.43	107	13.37	181	13.70	200
FRSH-Milk, Whole White	83.72	29	79.53	59	80.89	88	81.58	137	78.13	256	79.31	393
FROZ-Ice Cream	3.48	25	3.11	50	3.23	75	4.04	101	4.10	204	4.08	305
FRSH-Eggs	21.16	31	21.20	59	21.19	90	22.21	131	22.19	244	22.20	375
DRY-Flour, Whole Wheat	7.54	1	5.36	17	5.48	18	5.64	16	5.84	55	5.79	71
DRY-Spaghetti	19.66	28	15.77	58	17.01	86	17.58	136	16.53	252	16.89	388
DRY-White Rice	24.78	21	14.74	53	17.53	74	13.79	131	13.89	256	13.85	387
DRY-Corn Flakes	61.29	28	51.84	49	55.20	77	59.59	126	62.21	208	61.23	334
FRSH-Bread	41.08	32	36.66	55	38.26	87	42.74	140	42.32	243	42.47	383
DRY-Crackers	48.09	34	55.62	55	52.79	89	75.27	142	72.47	240	73.50	382
EPOZ-Pot Pie	2.06	5	1.78	31	1.82	36	1.98	35	1.93	81	1.94	116
5907-Dizza	9.07	19	10.56	43	10.11	62	11.28	55	11.63	101	11.51	156
CAN-Macazoni	2.30	27	2.04	56	2.12	83	2.24	120	2.05	207	2.12	327
Day Macanoni and Chases	7.01	26	5.45	55	5.94	81	7.00	125	6.73	223	6.83	348
CAN-Catalon and cheese	6.44	31	5.86	60	6.05	91	7.09	143	7.09	266	7.09	409
CAN-Catsup	12 86	31	14.08	57	13.66	88	13.68	137	15.06	242	14.57	379
CAN-Peanut Butter	6 10	32	5 48	50	5.70	91	6.67	136	6.09	235	6.30	371
LAN-Chicken soup	8.70	28	6.01	51	7 36	74	7.82	114	7.57	216	7.65	330
CAN-Spagnetti Sauce	74 54	14	38 05	62	37.37	98	35.73	159	38.78	283	37.70	442
CAN-SOTT Drinks, Cola	34.30	20	30.73	51	20 30	73	23 73	106	23.44	202	23.54	308
DRY-M & M type candy	19.08	22	14.10	50	14 71	01	16.79	140	17.34	267	17.15	616
DRY-Sugar	15.70	36	14.19	54	17 11		21 07	110	20.01	234	20 35	354
DRY-Coffee	17.93	30	10.08	20	17.11	00	21.05	110	20.01	230	201.00	

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

Snec	U CI	tor	0.0
Sher	 7 3	101	6.9

Food Product	Urban						Mixed					
	High-pov	erty	Othe	r	Tota	l	High-pov	erty	Othe	r	Tota	L
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
FRSH-Ground Beef	104.62	9	96.97	21	99.27	30	90.28	2	85.37	21	85.80	23
FRSH-Pork Chops	55.14	8	75.50	19	69.50	27	66.26	2	72.10	19	71.55	21
FRSH-Bacon	39.63	12	39.25	18	39.40	30	39.52	5	37.81	19	38.16	24
FRSH-Frankfurters	54.76	7	55.35	18	55.19	25	38.85	3	55.36	13	52.33	16
FRSH-Whole Chicken	77.05	10	69.66	21	72.03	31	52.61	1	61.19	11	60.48	12
FRSH-Fish Filets	34.53	7	39.54	28	38.55	35	26.46	4	32.32	6	30.01	10
CAN-Tuna	16.06	4	21.20	15	20.14	19	15.76	1	18.79	6	18.36	7
FRSH-Apples	22.35	3	25.68	7	24.70	10	16.52	1	24.62	2	22.04	3
FRSN-Bananas	21.25	2	28.46	9	27.14	11	16.14	1	20.35	4	19.53	5
FRSH-Lettuce	25.32	2	23.53	5	24.04	7	0	0	29.76	4	29.76	4
FRSH-Oranges	13.99	2	11.58	10	11.98	12	7.67	1	8.03	1	7.86	2
FRSN-Potatoes	17.68	-	16.73	13	16.95	17	8.63	2	25.06	11	22.59	13
FRSH-Tomatoes	11.58	6	13,10	11	12.70	15	9.57	ī	11.42	8	11.22	9
FROZ-Ocange Juice	63.16	2	56.59	2	59.83	4	0	0	0	ō	0	Ó
FROZ-Potatoes, White	3.52	ī	3.03	10	3.08	11	i õ	Ő	2.76	9	2.76	9
CAN-Applesauce	8.65	i	7.59	4	8,12	8	0	õ	8.24	5	8.24	5
CAN-Corp	36.10	6	37.70	12	37.17	18	33.56	2	33.84	12	33.80	14
	16 76	ž	16.93	8	16.87	12	12.47	ĩ	21.60	4	10.01	5
Dev-Potato Chine	21.46	10	14.38	27	16.28	37	20.26	5	17.25	31	17.65	36
EPSN-Chaddar Chases	30.02	7	35.00	15	36.20	22	25.41	ŝ	30.49	11	29.42	14
EPSN-Margarine Stick	10.73	4	14.76	ő	13.52	13	12.33	1	14.52	7	14.26	8
EDCU_Wilk Ubole Uhite	86 32		76 62	22	77 20	30	101 20	3	87 64	18	89.57	21
EBOZ-Lee Creen	5 28	2	6 70	5	6 18	8	0	õ	4.30	5	4.30	5
EDSN-Egge	22 80	12	21 53	25	21.04	37	22.50	4	21.12	13	21.44	17
DRY-Elour Uhole Uhest	4 00	12	6 38	2	5.54	5	0	õ	0.50	1	0.50	1
DRY-Spechatti	18 11	10	14 03	21	15 05	31	18.32	2	12.18	14	12.92	16
Develbite Dice	8 40	10	13 47	28	12 10	38	10.84	2	15.44	0	14.65	11
DRI-WHILE KICE	48 76	5	45 50	7	46 86	12	29.10	2	31.77	2	30.47	4
EDEN-Broad	40.44	10	31.05	36	33.81	46	34.73	5	35.99	29	35.81	34
NAN-Bread	110 73	6	71 30	20	80 50	26	110.34	ž	52.15	20	59.43	23
COO2-Dat Die	0.87	1	1 77	1	1 34	2	0	õ	1.77	1	1.77	1
ROZ-POL PIE	5 54		10.75	2	0.52	ĩ	ň	ő	3 12	1	3.12	1
RUZ-PIZZa	2.10	e i	2 47	2	2 23	7	2 71	1	1.51	ż	1.80	i
LAN-Macaroni	7 71	4	6 11	ő	6 75	15	8 16	i	6 35	11	6.49	12
OKT-Macaroni and Cheese	7.97	2	7.40	22	7 73	20	7 17	ż	7.45	17	7.41	20
CAN-Catsup	16.05		14 15	11	14 45	15	11 07	2	11.79	7	11.83	0
CAN-Peanut Butter	5.44	3	6.88	8	6 61	13	6.16	2	5.69	5	5.82	7
AN-Chicken soup	8 41	4	0.06	16	0.54	20	5 75	2	7.02	5	6.67	7
CAN-Spagnetti sauce	61 04	17	54 15	37	56 61	54	56 77	7	59.08	33	58.69	40
AN-SOTE UFINKS, LOLA	72.44	"	24.14	31	28.20		21 66	1	23 35	5	23 08	A
KT-M & M Type candy	1 15 27	-	18 70	17	17 60	25	17 03	2	16 74	ź	16.80	0
JKT-SUgar	13.21	2	20.07	17	29 54	21	18.07	6	26.44	11	23 00	12
DRT-Coffee	27.81	1	20.0/	11	20.30	64	10.9/	1	24.44		63.77	12

267

.

### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

Specialty Stores

Food Product			Rural						Total			
	High-pov	erty	Other	r	Tota	L	High-pov	erty	Othe	r	Tota	ι
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
FRSH-Ground Beef FRSH-Pork Chops FRSH-Pork Chops FRSH-Bacon FRSH-Frankfurters FRSH-Whole Chicken FRSH-Apples CAN-Tuna FRSH-Apples FRSH-Bananas FRSH-Lettuce FRSH-Oranges FRSH-Oranges FRSH-Oranges FRSH-Orange Juice FROZ-Orange Juice FROZ-Orange Juice FROZ-Orange Juice CAN-Apple Juice DRY-Potato Chips FRSH-Cheddar Cheese FRSH-Cheddar Cheese FRSH-Cheddar Cheese FRSH-Cheddar Cheese FRSH-Cheddar Cheese FRSH-Cheddar Cheese FRSH-Cheddar Cheese FRSH-Margarine, Stick FRSH-Cheddar Cheese FRSH-Bags DRY-Flour, Whole White FROZ-Ice Cream FRSH-Eggs DRY-Flour, Whole Wheat DRY-Spaghetti DRY-Crackers FROZ-Pot Pie FROZ-Pizza CAN-Macaroni and Cheese CAN-Catsup CAN-Peanut Butter CAN-Chicken Soup CAN-Spaghetti Sauce CAN-Spaghetti Sauce CA	28.28 0 0 28.28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000001000000000000000000000000000000000	91.10 83.61 40.89 49.99 61.24 24.53 13.38 20.02 21.44 16.96 7.95 16.34 15.67 61.81 2.80 7.72 32.07 9.15 18.57 27.70 71.81 5.57 19.54 12.73 22.08 34.02 42.19 1.20 1.66 5.23 73.60 15.90 12.35	7787422212482222157152522222222222222222222222	91.10 83.61 40.89 49.99 61.24 25.74 13.38 20.02 21.44 16.96 7.95 16.34 15.67 61.81 2.80 7.72 32.07 9.15 27.70 71.81 5.57 19.14 9.15 27.70 71.81 5.57 19.14 12.73 5.57 19.14 12.73 22.08 34.02 42.19 1.12 10.01 1.66 4.05 5.23 73.60 15.90 12.35	77874322212432222177152522222222122222222222	102.10 57.25 39.60 50.24 74.94 31.49 16.00 20.96 19.64 25.32 12.00 14.78 11.20 63.14 3.52 8.65 35.50 35.10 11.04 88.81 5.28 35.10 11.04 88.81 5.28 35.10 11.04 88.81 5.28 35.20 11.04 88.81 5.28 35.20 11.04 88.81 5.28 35.20 11.04 88.81 5.28 35.50 11.04 88.81 5.28 10.02 43.462 110.67 7.77 7.62 5.56 30.37 15.60 7.77 15.60 7.77 15.60 7.77 15.60 7.77 15.60 7.77 15.60 7.77 15.60 7.77 12.00 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.77 7.62 7.777 7.62 7.77 7.62 7.777 7.62 7.777 7.62 7.777 7.62 7.777 7.62 7.777 7.62 7.777 7.62 7.777 7.62 7.777 7.62 7.777 7.62 7.777 7.62 7.777 7.62 7.777 7.62 7.777 7.62 7.777 7.62 7.7777 7.62 7.7777 7.62 7.77777 7.62 7.7777777777	11077011254323652148577051363222759116716784508	91.27 75.32 38.94 54.40 66.24 37.61 19.94 24.50 25.44 25.34 10.78 19.89 12.84 25.90 7.91 35.54 17.81 16.09 32.00 14.25 2.90 14.25 2.90 14.25 2.90 14.25 2.90 14.25 2.90 14.25 2.90 14.25 2.90 14.25 2.90 14.25 2.90 14.25 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 15.54 2.90 1.56 2.12 2.90 1.56 2.12 2.90 1.56 2.12 2.90 1.56 2.12 2.90 1.56 2.12 2.90 1.56 2.12 2.90 2.12 2.90 1.56 2.12 2.90 2.00 2.00 2.00 2.00 2.00 2.00 2.0	495 455 386 363 211 150 1382 421 1633 1752 391 724 367 2240 421 2106 30 7240 425 706 7240 7240 7240 7240 7240 7240 7240 7240	93.29 72.01 39.12 53.52 68.29 36.12 19.25 23.57 24.47 25.34 11.00 18.99 12.55 24.47 25.34 11.00 18.99 12.55 8.11 35.53 17.30 32.72 13.52 81.28 5.48 21.25 13.52 81.28 5.48 21.25 14.86 12.47 5.48 5.48 5.48 5.44 5.40 12.47 5.40 12.47 5.40 12.47 5.40 12.57 14.86 5.48 5.40 12.47 5.40 12.47 5.40 12.57 14.86 5.40 5.40 5.40 5.40 5.40 5.40 5.40 5.40	6055624874882151812164762215488432565598951471392526129115638

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

Comicon			
Lonven	and the second s	31	OFes
		~	

Food Product	Urban						Mixed						
	High-pove	erty	Othe	r	Tota	ıl	High-pov	erty	Othe	r	Tota	ι	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	
FRSH-Ground Beef	80.25	3	110.93	7	101.81	10	79.86	2	85.16	1	81.69	3	
FRSH-Pork Chops	0	0	90.74	2	90.74	2	66.18	2	77.74	1	70.16	3	
FRSH-Bacon	40.39	28	49.36	181	48.17	209	41.61	31	45.45	168	44.86	199	
FRSH-Frankfurters	51.86	16	57.08	127	56.51	143	46.50	23	52.86	92	51.61	115	
FRSH-Whole Chicken	59.27	1	72.83	2	68.26	3	0	0	59.27	1	59.27	1	
FRSH-Fish Filets	0	0	44.17	4	44.17	4	25.44	1 1	0	0	25.44	1 1	
CAN-Tuna	19.68	38	20.42	214	20.31	252	22.08	34	20.83	189	21.02	223	
FRSH-Apples	37.61	4	39.78	26	39.48	30	19.88	3	56.08	12	48.86	15	
FRSH-Rananas	25.67	3	25.00	36	25.05	30	20.13	2	26.00	14	26.14	16	
FRSH-Letture	33.48	2	29.11	25	20.43	27	24.85	2	27.30	13	26.98	15	
EPSH-Ocanoes	22.28	3	19.80	21	20.11	24	10.30	1	21.03	4	18.87	5	
EPSH-Dotatoas	20.03	6	23 53	50	23 16	56	17.83	i o	10.64	34	19 50	43	
EDSH-Tomatoes	16 63	7	15 05	41	16.05	1 48	12 65	6	14 40	10	13 08	25	
EPOZ-Ocence luice	102 03	15	00 50	87	02 30	102	64 31	i i	89 18	78	87 06	82	
EPOZ-Detetore White	7 10	12	3 04	84	3 85	04	2 70	i i	3 47	78	3 61	87	
rkoz-potatoes, white	0.47	20	31 14	1/7	10.00	176	0.7/	21	11 27	1 120	10.04	157	
CAN-Applesauce	9.0/	27	11.11	14/	10.00	110	77.04	24	11.23	127	10.94	270	
CAN-Corn	38.80	31	43.85	204	43.09	241	37.40	30	41.51	192	40.00	230	
CAN-Apple Juice	10.93	20	11.09	122	17.08	1/3	20.10	30	10.02	121	19.04	101	
DRY-Potato Chips	14.57	44	10.20	239	10.01	283	10.09	40	10.08	221	10.08	213	
FRSH-Cheddar Cheese	39.07	25	40.32	150	42.30	181	40.94	19	43.38	14/	43.11	100	
FRSH-Margarine, Stick	14.30	20	15.70	109	15.52	194	14.94	21	14.02	139	14.84	100	
FRSH-Milk, Whole White	85.28	37	76.13	234	11.09	2/1	82.55	40	19.40	215	19.89	200	
FROZ-Ice Cream	4.23	20	4.09	193	4.10	219	4.00	34	4.07	184	4.07	218	
FRSH-Eggs	22.24	35	22.97	215	22.87	250	22.07	31	22.44	196	22.38	255	
DRY-Flour, Whole Wheat	7.23	2	6.98	14	7.01	10	2.0/	1	0.15	31	0.00	38	
DRY-Spaghetti	21.71	40	19.35	221	19.70	261	20.88	39	21.10	192	21.11	231	
DRY-White Rice	16.04	41	22.32	202	21.29	245	19.78	41	25.51	192	24.58	233	
DRY-Corn Flakes	72.36	34	78.92	188	11.94	222	13.55	31	10.01	1/5	10.10	200	
FRSK-Bread	36.68	43	38.20	227	37.90	270	34.84	43	34.32	222	34.40	201	
DRY-Crackers	91.80	41	105.62	222	103.51	263	102.27	41	102.76	204	102.68	245	
FROZ-Pot Pie	1.87	10	2.32	81	2.27	91	1.62	4	2.02	00	2.00	10	
FROZ-Pizza	13.89	17	13.38	118	13.44	135	11.67	13	12.47	100	12.58	113	
CAN-Macaroni	2.38	39	2.28	204	2.30	243	2.57	40	2.34	164	2.38	204	
DRY-Macaroni and Cheese	7.41	40	8.37	207	8.22	247	8.05	38	8.58	189	8.49	227	
CAN-Catsup	7.93	42	8.74	231	8.61	273	8.53	43	9.07	212	8.98	255	
CAN-Peanut Butter	16.70	38	17.90	218	17.73	256	18.12	39	17.92	208	17.95	247	
CAN-Chicken Soup	6.68	38	6.91	224	6.88	262	7.10	40	6.94	204	6.97	244	
CAN-Spaghetti Sauce	8.33	35	9.59	193	9.40	228	9.64	34	10.27	177	10.18	211	
CAN-Soft Drinks, Cola	39.18	44	35.96	244	36.44	288	36.98	45	37.00	220	36.99	265	
DRY-M & M type candy	22.21	38	23.59	221	23.39	259	23.96	44	23.09	214	23.23	258	
DR7-Sugar	19.09	42	20.60	223	20.37	265	19.55	43	21.79	213	21.42	256	
DRY-Coffee	20.83	39	22.11	224	21.92	263	20.55	30	21.55	207	21.43	237	

269

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Product			Rural						Total			
	High-pov	erty	Othe	r	Total	ι	High-pov	erty	Othe	r	lota	ι
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
FRSH-Ground Beef	0	0	91.95	5	91.95	5	80.10	5	101.81	13	95.88	18
FRSH-Pork Chops	0	0	93.88	2	93.88	2	66.18	2	89.45	5	83.14	7
FRSH-Bacon	41.99	16	41.92	48	41.94	64	41.22	75	46.85	397	45.97	472
FRSH-Frankfurters	45.37	9	47.15	25	46.69	34	48.14	48	54.54	244	53.52	292
FRSH-Whole Chicken	0	0	85.99	2	85.99	2	59.27	1	75.44	5	72.70	6
FRSH-Fish Filets	0	0	0	0	0	0	25.44	1	44.17	4	40.67	5
CAN-Tune	18.08	17	19.91	55	19.48	72	20.28	89	20.53	458	20.49	547
FRSH-Apples	14.99	1	29.08	10	27.86	11	28.27	8	41.54	48	39.68	56
FRSH-Bananas	0	0	26.45	9	26.45	9	23.52	5	25.67	59	25.50	64
FRSH-Lettuce	0	0	32.	8	32.02	8	29.22	4	29.09	46	29.10	50
FRSH-Oranges	0	0	14.09	4	14.09	4	19.40	4	19.19	29	19.21	33
FRSH-Potatoes	15.57	4	17.72	22	17.39	26	18.09	19	21.23	106	20.76	125
FRSH-Tomatoes	14.34	3	14.10	16	14.14	19	14.74	16	15.20	76	15.12	92
FROZ-Orange Juice	82.98	5	79.01	25	79.65	30	92.70	24	88.08	190	88.59	214
FROZ-Potatoes White	3.00	4	3.60	32	3.53	36	3.05	21	3.78	194	3.71	215
CAN-Applesauk	7.00	9	8.93	46	8.62	55	9.16	62	10.86	322	10.59	384
CAN-Corp	33.25	16	38,60	64	37.55	80	37.30	91	42.18	460	41.39	551
CAN-Apple Juice	16.48	17	15.90	44	16.06	61	18.25	67	17.68	350	17.77	417
DRY-Poteto Chine	16.01	23	15.12	65	15.35	88	15.47	113	16.05	531	15.95	644
EPSH-Chedder Chases	30.64	7	38.44	48	38.59	55	41.99	51	44.07	351	43.81	402
EDEN-Macgarine Stick	12.09	ó	13.20	40	13.00	49	14.26	61	15.08	348	14.96	409
EDCH_Milt Uhole Uhite	83 00	10	86.42	63	85.85	82	83.10	96	78.71	512	79.39	608
FROM-HILK, WHOLE WHILE	4 20	16	3 58	55	3.72	71	4.15	76	4.02	432	4.04	508
EDEN-Eage	21 38	16	22.11	50	21.96	75	22.02	88	22.65	470	22.55	558
DBY-Slour Uhole Uheat		0	6.51	12	6.51	12	5.79	3	6.41	63	6.38	66
DRY-Spochatti	10 44	14	19.66	60	19.62	74	21.03	93	20.11	473	20.26	566
DRY-Ubite Bice	28 47	10	20.25	38	21.92	48	19.00	92	23.57	432	22.78	524
DRY-Comp Eleker	74 22	12	72.01	47	72.45	59	73.12	77	77.18	410	76.55	487
ERSH-Broad	34 87	20	34.01	66	34.21	84	35.59	108	36.03	513	35.96	621
DBV-Concharg	77.25	10	77.74	61	77.62	80	93.33	101	101.05	487	99.75	588
EPOZ-Dot Die	1.55	3	1.96	22	1.92	25	1.76	17	2.16	169	2.13	186
EDOZ-Diana	11 27	õ	10.29	30	10.47	48	12.56	39	12.57	257	12.57	296
TAN-Necesoni	2 58	18	2.34	47	2.40	65	2.49	97	2.31	415	2.35	512
DRY-Macaroni and Chaosa	7 71	16	7.76	57	7.75	73	7.71	94	8.38	453	8.27	547
DRT-Macaroni and cheese	8 08	20	8.22	64	8.19	84	8.20	105	8.81	507	8.71	612
CAN-Catsup	14 00	22	16 38	62	16.00	84	16.86	99	17.72	488	17.58	587
CAN-Peanut Butter	6 35	10	7.27	60	7.06	79	6.79	97	6.97	488	6.94	585
CAN-Conchetti Soure	10.58	16	9.62	43	9.86	57	9.23	83	9.88	413	9.78	496
CAN-Spagnetti sauce	38 17	22	35 95	65	39.06	87	38.10	111	36.79	529	37.01	64V
DAN-SOTE DETINKS, COLA	25 54	15	23 30	57	23.76	72	23.50	97	23.34	492	23.37	589
par a r type candy	16 08	17	17.72	64	17.38	81	18.79	102	20.74	500	20.42	602
DRT-Sugar	17 71	18	20.45	64	19.86	82	20.11	37	21.67	495	21.44	582
pk1-corree	11.11	10	20.43	04	17.00	UL						

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

Food Product			Urban						Mixed	1		
	High-pove	erty	Othe	r	Tota	ι	High-pov	erty	Othe	r	Tota	ι
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
FRSH-Ground Beef	0	0	0	0	0	0	0	0	101.01	4	101.01	4
FRSH-Pork Choos	0	0	0	0	0	0	0	0	57.51	1	57.51	1
FRSH-Bacon	51.37	9	45.04	42	46.09	51	39.88	7	47.82	61	47.01	68
FRSH-Frankfurters	63.60	4	62.57	34	62.67	38	49.07	4	56.07	36	55.38	40
FRSH-Whole Chicken	0	Ö	0	0	0	0	0	i o	63.27	1	63.27	1
FRSH-Fich Filete	i i	ŏ	i o	ő	0	ŏ	i õ	i õ	0	ó	0	i o
CAN-Tuna	24.67	ő	20.27	51	20.89	60	21.76	8	18.43	74	18.76	82
EDSH-Apples	23.06	1	30 00	5	20 64	6	35 27	1	34.11	18	34.18	10
EPS4-Rananas	26.90	1	20.71	7	21.45	8	23.07	1	25.33	18	25.26	19
EDCH-1 attuce	36 40	1	32 06	5	33 51	Ä	22 46	1	35 85	11	36 71	12
EDCH-Oceana	30.47	ó	16 21	i	16 21	4	0	i i	16 07	10	16 07	10
rksn-Oranges	27 17	1	15 80	7	16 80		17 00	i i	20 33	17	10.86	21
rksh-Potatoes	17.09		17 44		17.60	0	11.70	i i	17 50	21	17.00	21
rksh-longtoes	110.70	-	00.67	75	01 49	77	74 20	2	97 26	37	82 70	30
FROZ-Orange Juice	110.39	4	7 75	32	7 77	20	5 40	1 2	63.20	10	1 22	17
FRUZ-Fotatoes, white	4.00	1	3.13	20	3.11	27	9.70	2	10.26	40	4.22	43
CAN-Applesauce	9.10	4	10.00	39	10.52	43	0.70	42	70.57	24	70.69	82
CAN-CORN	22.32	0	42.23	41	43.06	22	40.55	12	37.33	51	37.00	60
CAN-Apple Juice	19.68		10.44	21	11.66	20	17.00		11.15	21	11.13	00
DRY-Potato Chips	10.14	12	15.06	22	15.25	01	14.41	12	14.91	10	14.90	90
FRSH-Cheddar Cheese	40.00	2	41.74	44	41.95	40	31.38	4	41.04	20	41.30	00
FRSH-Margarine, Stick	15.05	5	14.28	44	14.36	49	14.56	8	14.45	21	14.44	00
FRSH-Milk, Whole White	71.36	10	73.77	55	73.42	65	100.00	12	15.90	18	19.09	90
FROZ-Ice Cream	4.78	7	3.42	49	3.58	56	3.87	9	3.36	65	3.42	14
FRSH-Egg/	25.02	9	21.10	46	21.70	55	23.45	11	23.17	15	25.21	84
DRY-Flour, Whole Wheat	0	0	5.34	2	5.34	2	0	0	5.94	0	5.94	0
DRY-Spaghetti	22.92	10	19.70	49	20.21	59	24.87	12	19.55	73	20.28	85
DRY-White Rice	18.29	9	26.05	34	24.50	43	16.17	11	25.63	62	24.25	73
DRY-Corn Flakes	87.27	9	74.39	46	76.36	55	71.30	6	78.97	60	78.29	66
FRSH-Bread	41.98	11	38.26	52	38.88	63	37.19	11	34.17	77	34.54	88
DRY-Crackers	105.31	11	95.58	51	97.20	62	85.82	12	91.85	71	91.00	83
FROZ-Pot Pie	1.77	1	2.20	30	2.18	31	0	0	1.96	34	1.96	34
FROZ-Pizza	14.50	1	11.32	34	11.41	35	10.14	2	11.66	50	11.60	52
CAN-Macaroni	2.77	9	2.13	52	2.21	61	2.50	8	2.16	55	2.21	63
DRY-Macaroni and Cheese	9.05	11	8.30	50	8.42	61	8.65	10	8.31	67	8.35	77
CAN-Catsup	8.57	10	9.03	53	8.96	63	8.16	12	7.85	77	7.89	89
CAN-Peanut Butter	18.81	8	17.21	54	17.41	62	16.49	11	16.04	74	16.10	85
CAN-Chicken Soun	6.95	10	6.45	51	6.52	61	7.42	11	6.60	71	6.71	82
CAN-Spechetti Sauce	12.56	8	10.50	49	10.77	57	12.48	10	9.31	62	9.74	72
CAN-Soft Drinke Cola	34.27	12	34.15	54	34.17	66	31.84	12	36.07	78	35.52	90
DAY N & M turns condu	24 54	12	21 38	54	21.92	66	24.99	12	23.35	76	23.57	88
DRY Sugar	18 45	11	20.70	52	20.44	63	17.75	12	22.03	78	21.47	90
DRT-Sugar	22.40	4	21 22	52	21 34	58	22.17	10	19.72	75	20.01	85
INT-LOTTEE	26.47	0	61.66	36	61.34	50		10				

#### Grocery/Gas Outlets

.

271

## Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

Grocery/Gas Outlets

FRSH-Ground Beef FRSH-Pork Chops FRSH-Bacon FRSH-Frankfurters FRSH-Viole Chicken	High-pove Mean 97.24 67.13 37.50 44.55 56.61 0 16.67 17.02 25.71 19.47	N N 3 2 16 12 1 0 18 3	Other Mean 95.31 55.73 41.54 54.66 51.95 0 17.38	N 6261 361	Total Mean 95.95 61.44 40.71 52.15	N 9 4 77	High-pove Mean 97.24 67.13	N N 3 2	Other Mean 97.56 56.33	N 10	Tota Mean 97.48	N 13
FRSH-Ground Beef FRSH-Pork Chops FRSH-Bacon FRSH-Frankfurters FRSH-Frankfurters	Mean 97.24 67.13 37.50 44.55 56.61 0 16.67 17.02 25.71 19.47	N 3216 121 0183	Mean 95.31 55.73 41.54 54.66 51.95 0 17.38	N 6 2 61 36	Mean 95.95 61.44 40.71 52.15	N 9 4 77	Mean 97.24 67.13	N 3 2	Mean 97.56 56.33	N 10 3	Mean 97.48	N 13
FRSH-Ground Beef FRSH-Pork Chops FRSH-Bacon FRSH-Frankfurters FRSH-Frankfurters	97.24 67.13 37.50 44.55 56.61 0 16.67 17.02 25.71 19.47	3 2 16 12 1 0 18 3	95.31 55.73 41.54 54.66 51.95 0 17.38	6 2 61 36 1	95.95 61.44 40.71 52.15	9477	97.24 67.13	32	97.56	10	97.48	13
FRSH-Pork Chops FRSH-Bacon FRSH-Frankfurters FRSH-Frankfurters	67.13 37.50 44.55 56.61 0 16.67 17.02 25.71 19.47	16 12 1 0 18 3	55.73 41.54 54.66 51.95 0 17.38	61 36 1	40.71	77	01.13	6	20,33			E
FRSH-Bacon FRSH-Frankfurters	37.50 44.55 56.61 16.67 17.02 25.71 19.47	12 1 18 3	41.34 54.66 51.95 0 17.38	36	52.15		1 / 1 0/ 1	73	11 00	141	00.00	104
FRSH-Frankfurters	44.55 56.61 0 16.67 17.02 25.71 19.47	12 1 18 3	54.00 51.95 0 17.38	30	1 32 13 1	10	41.94	26	44.00	104	44.33	190
IERSH-UNALA Chickan	56.61 0 16.67 17.02 25.71 19.47	1 18 3	0 17.38		51 77	40	49.36	20	57 70	100	57.70	120
ran-whote chicken	16.67 17.02 25.71 19.47	18	17.38	0	24.33	6	20.01		51.19	6	31.39	5
FRSH-Fish Filets	17.02 25.71 19.47	3	17.30	70	17 7	00	10 02	76	10 54	105	19 74	270
CAN-Tuna	25.71	3	74 7/ 1	10	30 0/	10	22 00	33	10.50	35	31 40	230
FRSH-Apples	19.47		31.74	17	20.04	20	25 60	ŝ	26.03	62	26 62	47
rksh-bananas	19.47	37	27 72	15	24.73	18	23 53	ŝ	31 54	31	30.42	36
PRSH-Lettuce		2	19 32	12	16 43	0	0 58	2	16 43	21	15.86	23
rksh-uranges	10.70	5	22 57	77	21 07	10	10 23	12	21.00	57	20 69	60
PRSM-Potatoes	17.30	1	12 37	22	12 53	26	16 15	5	13 77	51	13.80	56
PRSH-Tomatoes	90.06	-	76 72	41	78 04	46	00.60	ó	83.32	113	83.84	122
FROZ-Drange Juice	2 81	2	3.80	16	3.44	54	3.64	12	3.90	114	3.88	126
rkuz-rotatoes, white	7 20	12	8 01	50	8 44	71	8.00	25	9.86	152	9.62	177
CAN-Applesauce	36 83	18	35 00	68	36.00	86	41.27	38	38.95	185	39.33	223
CAN-COPH	15 28	10	16 70	44	16.51	54	17.06	26	16.88	116	16.92	142
CAN-Apple Juice	14 03	10	16 36	77	16.20	20	14.73	43	14.78	210	14.77	253
DRT-Potato Chips	37 00	11	37 02	52	37 17	63	38.86	17	40.19	158	40.06	175
FRSH-Uneddar Cheese	13 08	13	13 01	58	13.02	71	13.86	26	13.89	159	13.89	185
FROM Wilk Uhole Uhite	78 34	18	76 32	74	76.71	02	83.12	40	75.48	207	76.68	247
FRSH-MILK, WHOLE WHILE	3 32	16	3 76	50	3.67	75	3.80	32	3.51	173	3.56	205
FRUZ-ICE Cream	21 52	18	20.89	74	21.01	92	22.92	38	21.80	193	21.98	231
PRSH-Eggs	6 48	2	5 43	5	5.73	7	6.48	2	5.65	13	5.76	15
DRY-Snochetti	18 00	18	18.16	71	18.11	89	21.31	40	19.08	193	19.45	233
DRY-Ubite Bice	20.89	14	21.64	49	21.48	63	18.67	34	24.40	145	23.35	179
DRY-Coop Elekee	54 43	16	64.60	64	62.99	80	68.29	31	72.41	170	71.79	201
ERCHARCON FLAKES	30 21	10	38.40	78	38.56	97	39.41	41	36.79	207	37.21	248
DBV-Crackers	62.66	10	64.91	70	64.40	89	80.41	42	83.31	192	82.81	234
EPOZ-Dot Die	1.64	6	2.16	26	2.07	32	1.66	7	2.10	90	2.07	97
FROZ-FOL FIG	0.66	8	12.10	51	11.77	59	10.22	11	11.73	135	11.62	146
CAN-Macaroni	2.43	13	2.22	60	2.26	73	2.55	30	2.17	167	2.23	197
DRY-Macaroni and Cheese	5.85	16	6.77	67	6.60	83	7.57	37	7.76	184	7.73	221
CAN-Cateun	7.03	19	7.50	73	7.40	92	7.74	41	8.04	203	7.99	244
CAN-Desput Rutter	13.63	19	14.91	69	14.64	88	15.55	38	15.99	197	15.92	235
CAN-Chicken Soun	6.02	17	6.42	68	6.34	85	6.67	38	6.50	190	6.52	228
CAN-Snachetti Sauce	8.53	13	7.92	51	8.04	64	10.86	31	9.25	162	9.50	193
CAN-Soft Drinks Cola	33.21	19	36.33	78	35.72	97	33.12	43	35.65	210	35.23	253
DRY-M & M type candy	22.02	19	23.09	66	22.85	85	23.56	43	22.70	196	22.85	239
DRY-Sugar	15.41	17	17.00	74	16.71	91	17.01	40	19.92	204	19.45	244
Dky-Coffee	17.49	19	19.68	73	19.24	92	19.70	35	20.11	200	20.05	235

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

			0000	
- 0.0	ner	311	ores.	

Food Product			Urbar	1					Mixed	1		
	High-pov	erty	Othe	r	Tota	ι	High-pov	erty	Othe	r	Tota	ι
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
FRSH-Ground Beef	107.72	2	107.16	4	107.34	6	102.77	2	79.77	9	83.92	11
FRSH-Pork Chops	66.18	1	82.42	3	78.43	4	41.84	2	66.20	7	60.88	9
FRSH-Bacon	36.93	3	43.71	20	42.84	23	32.58	5	37.42	18	36.39	23
FRSH-Frankfurters	46.91	3	50.81	17	50.22	20	50.15	4	47.51	12	48.16	16
FRSH-Whole Chicken	0	0	71.60	3	71.60	3	65.93	1	53.82	6	55.54	7
FRSH-Fish Filets	42.49	1	66.21	3	60.33	4	42.57	2	38.64	3	40.18	5
CAN-Tuna	15.19	11	17.83	33	17.18	44	14.55	7	15.81	25	15.54	32
FRSH-Apples	23.02	14	30.24	19	27.19	33	21.42	8	27.02	29	25.83	37
FRSH-Bananas	22.99	19	20.93	21	21.89	40	18.81	8	20.54	26	20.14	34
FRSH-Lettuce	21.74	13	20.51	17	21.04	30	14.91	6	19.93	19	18.73	25
FRSH-Oranges	11.20	10	11.48	15	11.36	25	6.64	5	11.12	26	10.40	31
FRSH-Potatoes	18.50	20	23.06	26	21.10	46	11.85	9	17.35	31	16.14	40
FRSH-Tomatoes	11.58	19	14.06	26	13.02	45	8.31	9	11.39	29	10.67	38
FROZ-Orange Juice	69.30	2	85.15	8	81.93	10	70.88	3	67.89	19	68.29	22
FROZ-Potatoes, White	3.62	2	3.98	7	3.90	9	3.08	5	2.65	15	2.76	20
CAN-Applesauce	6.98	11	11.31	21	9.82	32	7.19	4	7.26	22	7.25	26
CAN-Corn	32.99	7	37.39	21	36.30	28	31.25	7	32.29	23	32.05	30
CAN-Apple Juice	15.67	9	14.33	24	14.69	33	14.55	6	13.92	26	14.03	32
DRY-Potato Chips	17.61	15	17.47	51	17.50	66	16.47	10	17.04	45	16.94	55
FRSH-Cheddar Cheese	41.81	5	39.22	26	39.64	31	24.68	3	35.63	26	34.53	29
FRSH-Margarine, Stick	13.87	5	16.21	25	15.83	30	10.15	7	15.58	24	14.39	31
FRSH-Milk, Whole White	73.35	14	79.59	42	78.06	56	92.18	10	89.17	35	89.82	45
FROZ-Ice Cream	6.90	3	4.20	19	4.56	22	3.29	6	4.18	32	4.04	38
FRSN-Foos	21.52	19	22.24	38	22.01	57	21.92	7	25.15	37	24.65	44
DRY-FLour, Whole Wheat	6.49	5	8.99	8	8.03	13	4.84	1	7.91	17	7.74	18
DRY-Spachetti	17.33	14	16.68	37	16.86	51	16.93	8	21.69	34	20.81	42
DRY-White Rice	18.25	9	16.58	24	17.03	33	19.88	9	14.93	26	16.19	35
DRY-Corn Flakes	81.56	6	79.31	29	79.69	35	111.41	4	61.84	21	69.49	25
RSH-Bread	37.67	11	38.98	44	38.72	55	33.73	9	36.31	36	35.80	45
DRY-Crackers	74.53	12	76.21	33	75.77	45	88.00	8	50.80	25	59.69	33
ROZ-Pot Pie	2.35	2	2.26	9	2.28	11	1.32	1	2.27	12	2.20	13
EROZ-Dizza	10.88	1	12.44	0	12.29	10	8.34	3	11.08	18	10.69	21
CAN-Macaroni	1.69	4	2.09	21	2.03	25	2.55	6	1.48	18	1.74	24
RY-Macaroni and Cheese	8.39	9	7.04	27	7.37	36	6.66	8	5.90	22	6.10	30
CAN-Catsup	7.93	11	7.92	35	7.92	46	6.53	6	7.82	28	7.60	34
AN-Deanut Rutter	13.01	13	13.65	32	13.72	45	13.39	8	13.84	33	13.76	41
CAN-Chicken Soun	5.87	7	6.25	20	6.15	27	6.55	8	6.18	23	6.28	31
CAN-Spaghetti Sauce	8.53	11	7.72	26	7.96	37	7.83	5	8.53	25	8.42	30
CAN-Soft Drinks, Cola	52.42	22	45.12	50	47.31	72	40.87	10	41.40	47	41.31	57
W-M & M type candy	19.85	7	20.03	25	19.99	32	23.81	9	16.52	26	18.35	35
RY-Sugar	16.86	10	19.52	27	18.81	37	16.33	8	17.61	23	17.29	31
PV-Coffee	17.81	11	19.69	31	19.20	42	16.82	8	19.58	27	18,96	35
AI-COILEE	11.01		17.07		17.60		10106	-				

.

273

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

Other Stores

Food Product		-	Rural						Total			
	High-pove	erty	Othe	r	Tota	ι	High-pov	erty	Othe	r	Tota	ι
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
FRSN-Ground Beef	95.24	1	103.45	8	102.58	9	103.41	5	94.03	21	95.81	26
FRSH-Pork Chops	0	0	75.88	4	75.88	4	50.28	3	12.55	14	68.60	11
FRSH-Bacon	36.53	9	38.25	19	37.71	28	35.44	17	39.96	57	38.95	14
FRSH-Frankfurters	42.21	6	41.62	9	41.85	15	45.81	13	47.67	58	47.21	51
FRSH-Whole Chicken	0	0	66.80	2	66.80	2	05.95	1	02.39	14	02.02	12
FRSH-Fish Filets	0	0	0	0	0	0	42.54	3	22.55	0	49.21	442
CAN-Tuna	16.14	13	17.18	23	10.81	30	15.45	31	17.05	61	10.00	112
FRSH-Apples	19.34	6	29.14	12	25.94	18	21.81	28	28.48	00	20.31	00
FRSH-Bananas	16.57	1	29.28	11	24.43	18	20.74	34	22.31	20	21.74	76
FRSH-Lettuce	20.00	1	28.32	12	23.33	19	19.72	20	12 50	40	11 77	72
FRSH-Oranges	8.04	4	17.19	12	15.10	10	16 17	17	20 72	75	10 10	117
FRSH-Potatoes	15.43	15	23.07	18	17.92	31	10.17	70	13 30	72	12 22	110
FRSH-Tomatoes	8.69	10	12.42	17	74 44	17	72 43	30	76 36	12	74 01	40
FROZ-Orange Juice	79.00	5	2.75	14	2 44	20	2 01	1 11	2 04	38	2 03	10
PROZ-POTATOES, White	2.20	*	8 55	10	8 20	26	7 10	22	0.04	62	8.56	84
CAN-Applesauce	77 47	6	28 28	20	20 03	20	32 72	23	32 78	64	32 76	87
CAN-CORN	33.0/	2	17 70	17	14 60	25	15 42	23	14 03	67	14 43	00
CAN-Apple Juice	10.3/	17	17 13	27	16 71	10	16 71	38	17.24	123	17.12	161
DRT-Potato Chips	70.47	13	70 19	23	37 45	20	33 56	14	37.07	75	37.20	89
FRSH-Cheddar Cheese	12 51	0	13 71	20	13 38	28	12.04	20	15.29	69	14.58	89
FRSM-Margarine, Stick	70.04	10	80.83	27	80 36	37	80.42	34	83.08	104	82.44	138
PRSN-MILK, Whole white	2.07	10	60.03	28	3 77	32	3 76	18	4.15	74	6.08	92
FRUZ-ICE Lream	20.77	12	24 72	26	23 51	38	21 36	38	23.01	101	23.23	139
PRSN-Eggs	20.11	10	6 82	8	6.82	8	6.22	6	7.92	33	7.65	39
DRT-FLOUF, Whole wheat	17 08	11	17 71	24	17.52	35	17.16	33	18.71	95	18.32	128
DRT-Spagnetti	26 70	10	16 26	21	10.53	31	21.70	28	15.88	71	17.50	99
DRT-WITTE RICE	62 05	11	60 24	18	61.24	20	77.73	21	69.06	68	71.04	89
DRT-Corn Flakes	30 81	11	35 44	23	36.96	34	37.26	31	37.34	103	37.32	134
PRSN-Dread	66 65	12	62.73	20	64.16	32	75.01	32	64.86	78	67.75	110
5007-Dot Die	1.77	1	2.32	13	2.29	14	1.96	4	2.29	34	2.25	38
EBOZ-Disse	10.81	Ś	11.10	13	11.09	18	9.98	9	11.43	40	11.17	49
CAN-Macazoni	2.42	õ	1.00	17	2.13	26	2.30	19	1.86	56	1.97	75
DBY-Macanoni and Chases	7 68	10	5.18	18	6.05	28	7.63	27	6.18	67	6.59	94
CAN-Cateuro	12.02	12	6.70	21	8.59	33	9.28	29	7.59	84	8.01	113
CAN-Desput Butter	14.52	12	13.62	23	13.92	35	14.00	33	13.71	88	13.79	121
CAN-Chicken Soun	6.29	10	5.66	19	5.88	29	6.26	25	6.05	62	6.11	87
CAL Compatti Sauce	9.90	8	7.97	22	8.47	30	8.83	24	8.07	73	8.26	97
CAN-soft Drinks Cola	36.41	15	42.93	26	40.59	41	45.07	47	43.27	123	43.76	170
DRY-W & M type centy	22.18	10	21.93	18	22.02	28	22.10	26	19.20	69	19.97	95
DBY-Sumar	16.18	13	24.09	21	21.13	34	16.45	31	20.22	71	19.10	102
DRY-Coffee	17.96	11	19.28	25	18.89	36	17.60	30	19.54	83	19.03	113

274

۰.

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

ALL STOCE LVDES	
ALL SLOLE IFPES	

Food Product			Urbar	1					Mixed	4		
	High-pov	erty	Othe	r	Tota	ıl	High-pov	rerty	Othe	r	Tota	ı
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
FRSH-Ground Beef	88.03	44	81.16	223	82.28	267	80.48	31	78.11	206	78.41	237
FRSH-Pork Chops	60.13	48	68.22	205	66.70	253	61.59	29	65.78	187	65.23	216
FRSH-Bacon	39.25	139	40.62	540	40.35	679	37.89	90	38.23	485	38.18	575
FRSH-Frankfurters	46.87	94	48.88	455	48.54	549	44.46	68	47.80	333	47.25	401
FRSH-Whole Chicken	68.89	33	64.54	196	65.16	229	54.41	20	57.53	165	57.21	185
FRSH-Figh Filets	37.52	18	41.01	170	41.49	188	27.97	14	45.48	103	43.45	117
CAN-Tume	17.00	156	17.30	616	17.44	772	18.01	05	16.87	522	17.04	617
	24 55	54	25 71	275	25 85	371	26 20	12	26 15	237	25 87	270
FRSH-Apples	20.55	90	27 81	201	27.65	297	21.00	14	27 22	2/5	23.07	284
rksn-senanas	23.00	50	23.01	262	24.30	203	27.00	24	23.66	243	23.03	200
rksn-Lettuce	24.93	20	24.10	257	24.29	302	23.40	20	10.01	202	10 47	220
-KSH-Oranges	12.40	41	11.03	600	11.70	000	9.05	21	10.91	204	10.07	232
FRSH-Potatoes	18.61	100	18.28	352	18.35	452	17.14	50	17.18	293	11.11	355
FRSH-Tomatoes	13.15	96	13.32	328	13.28	424	10.89	48	12.04	200	12.38	314
FROZ-Orange Juice	83.07	64	69.13	336	71.35	400	65.30	40	64.93	318	64.97	358
FROZ-Potatoes, White	2.45	72	2.76	349	2.70	421	2.69	44	2.56	334	2.57	378
CAN-Applesauce	8.82	128	8.91	484	8.89	612	7.84	73	8.42	434	8.34	507
CAN-Corn	37.32	154	36.70	603	36.82	757	33.41	110	34.03	530	33.93	640
CAN-Apple Juice	15.99	99	13.57	450	14.00	549	15.56	85	14.08	433	14.32	518
RY-Potato Chips	15.82	187	15.19	701	15.32	888	16.16	128	14.80	620	15.03	748
RSH-Cheddar Cheese	37.23	111	37.96	509	37.83	620	35.99	69	35.88	451	35.90	520
RSH-Margarine, Stick	13.86	127	13.02	519	13.19	646	12.35	81	12.19	438	12.21	519
PSH-Milk Whole White	78.61	170	75.23	678	75.89	848	85.16	115	78.36	581	79.46	696
POZ-Ice Cream	4.18	110	3.76	550	3.83	660	3.61	91	3.35	502	3.39	593
EPSH-Eage	22.12	176	22.12	643	22.12	819	21.43	100	21.34	545	21.35	645
AN Elaur Uhole Uhest	5 02	33	5.54	202	5.50	235	4.76	15	5.38	214	5.34	229
DV-Cochetti	17 00	175	15 04	648	16 35	823	18.45	111	17.11	550	17.33	661
NKT-Spagnetti	12 50	175	16 69	622	16.35	707	15 00	112	18 28	522	17 87	634
KT-White Kice	12.30	1/0	41 73	544	61 27	715	42 13	80	50 75	167	60 12	554
KT-Corn Flakes	00.04	174	74 99	445	37 44	8/1	32 04	120	32 81	602	32 83	722
KSN-Bread	40.07	170	30.00	(7/	70 50	041	91 7/	117	72 59	554	74 00	440
RT-Crackers	82.41	1/1	10.02	740	19.39	275	1 77	70	1 45	200	1 47	320
ROZ-Pot Pie	1.82	57	1.78	310	1.79	3/3	1.5/	30	1.07	290	1.03	320
ROZ-Pizza	11.95	67	10.84	354	11.02	421	9.80	44	10.27	333	10.25	344
AN-Macaroni	2.18	147	1.97	566	2.01	713	2.21	100	1.8/	450	1.94	220
RY-Macaroni and Cheese	7.12	160	6.59	586	6.70	746	6.75	105	6.59	518	6.61	625
AN-Catsup	7.24	173	7,31	669	7.29	842	7.15	115	6.98	574	7.00	689
AN-Peanut Butter	14.69	161	14.80	629	14.78	790	15.48	110	14.27	554	14.46	664
AN-Chicken Soup	6.31	158	5.99	603	6.05	761	6.73	108	5.92	535	6.05	643
AN-Spaghetti Sauce	7.87	152	7.60	578	7.65	730	8.25	92	7.72	492	7.80	584
AN-Soft Drinks, Cola	39.15	206	34.85	730	35.78	936	36.39	130	35.46	618	35.61	748
RY-M & M type candy	23.63	136	20.77	576	21.30	712	22.10	115	20.24	548	20.56	663
PY-Sumar	16.96	179	17.62	655	17.48	834	17.23	115	18.25	557	18.08	672
BY-Coffee	21 44	153	10.38	632	19.78	785	18.08	91	18,10	552	18,10	643

275

#### Average Annual Cost of Market Basket by Food Product, Degree of Urbanization, Poverty Level and Store Type

All Store Types

Food Product			Rural						Total	L		
	High-pov	erty	Othe	r	Tota	ı	High-pov	erty	Othe	۲ <b>۲</b>	Tota	it
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
FRSH-Ground Beef	84.34	23	85.21	138	85.09	161	84.85	98	81.04	567	81.59	665
FRSN-Pork Chops	69.76	16	68.71	119	68.83	135	62.18	93	67.45	511	66.65	604
FRSH-Bacon	36.01	74	36.55	290	36.44	364	38.08	303	38.88	1315	38.73	1618
FRSH-Frankfurters	42.99	59	49.49	199	48.04	258	45.14	221	48.64	987	48.02	1208
FRSH-Whole Chicken	55.30	14	63.26	100	62.32	114	61.99	67	61.80	461	61.83	528
FRSH-Fish Filets	38.78	4	44.65	32	44.03	36	34.06	36	43.37	305	42.41	341
CAN-Tuna	16.69	89	16.08	310	16.21	399	17.67	340	16.89	1448	17.04	1788
FRSH-Apples	21.41	30	25.62	160	24.97	190	24.66	128	25.84	672	25.65	800
FRSH-Bananas	20.87	30	23.95	167	23.50	197	22.34	153	23.64	713	23.42	866
FRSH-Lettuce	20.04	27	24.96	143	24.20	170	23.32	103	23.85	597	23.78	700
FRSH-Oranges	9.92	18	12.10	128	11.84	146	10.95	96	11.48	585	11.41	681
FRSH-Potatoes	15.88	57	17.73	221	17.35	278	17.51	219	17.77	866	17.72	1085
EPSH-Tomatoes	12.48	41	13.24	188	13.11	229	12.44	185	13.07	782	12.95	967
FRO7-Ocange Juice	72.43	32	63.99	217	65.04	249	75.56	136	66.36	871	67.58	1007
EP07-Potatoes Uhite	2.35	46	2.76	240	2.70	286	2.49	162	2.69	923	2.66	1085
CAN-Appleasure	6.60	63	7.50	284	7.34	347	8.04	264	8.41	1202	8.35	1466
CAN-Corp	31.68	86	31.75	316	31.74	402	34.76	350	34.68	1449	34.70	1799
CAN-Apple Juice	13.49	69	13.18	230	13.25	299	15.18	253	13.69	1113	13.96	1366
DRY-Poteto Chine	15.48	104	13.89	342	14.25	446	15.84	419	14.78	1663	14.99	2082
ERSH-Chedder Cheese	34.74	50	33.94	278	34.06	328	36.34	230	36.33	1238	36.33	1468
EPSH-Margarine Stick	11.46	63	11.71	267	11.66	330	12.88	271	12.45	1224	12.53	1495
EPSH-Milk Uhole Uhite	79.89	88	78.64	332	78.90	420	80.88	373	77.05	1591	77.76	1964
EPOZ-LCe Creem	3.32	78	3.24	292	3.75	370	3.77	279	3.50	1344	3.55	1623
EPSN-Eage	20.41	89	20.85	327	20.76	416	21.53	365	21.58	1515	21.57	1880
DBY-Flour Uhole Uheat	5.47	11	5.36	120	5.37	131	5.56	59	5.44	536	5.45	595
DBV-Spachatti	17.50	83	15.84	320	16.19	403	17.99	369	16.34	1518	16.65	1887
DRY-Uhite Dice	21.83	67	14.86	263	16.23	330	15.26	354	16.03	1407	15.88	1761
DRY-Corp Flaker	57 52	70	52.20	280	53.42	359	60.39	317	58.90	1313	59.18	1630
ERCH-Read	36.67	94	33.84	333	34.45	427	37.39	390	34.75	1600	35.26	1990
DBY-Crackers	56.98	96	57.33	313	57.25	409	75.96	380	72.20	1503	72.94	1883
EBOZ-Dot Die	1.46	27	1.80	187	1.76	214	1.62	114	1.74	795	1.73	909
FROZ-POL FIE	0.54	53	10.34	247	10.20	300	10.63	164	10.51	956	10.52	1120
CAN-Macanani	2 26	70	1.02	282	1.99	361	2.22	326	1.93	1298	1.98	1624
Day Macaroni and Choose	6.46	80	5.67	303	5.83	383	6.86	345	6.39	1407	6.48	1752
DRT-Macaroni and cheese	7 18	05	6.20	324	6.62	419	7.20	383	6.97	1567	7.01	1950
CAN-Catsup	13 15	06	13 17	318	13.17	414	14.53	367	14.27	1501	14.32	1868
CAN-Peanut Butter	5 02	00	5 76	312	5.80	402	6.34	356	5.91	1450	6.00	1806
CAN-Chicken soup	8 21	70	6.83	270	7.11	340	8.06	314	7.49	1340	7.60	1654
CAN-Spagnetti Sauce	34 07	104	36.16	343	35.68	447	37.18	440	35.33	1691	35.70	2131
LAN-SOTE DETINKS, COLA	20.79	78	20.06	205	20.21	373	22.44	329	20.42	1419	20.79	1748
DAT-H & H type candy	15 10	01	15 24	325	15.21	416	16.61	385	17.35	1537	17.21	1922
DKT-Sugar	17.00	00	17 12	325	17.00	415	19.30	334	18.44	1509	18.61	1843
DRT-COTTee	17.00	90	17.16	363	11.07	415	17.37		10144			

276

## Average Level of Freshness of Perishable Items by Degree of Urbanization, Poverty Level and Store Type

### Supermarkets

Food Group			Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat	Average Number	0.99	0.99	0.99	0.99	0.99	0.99	1.00	0.98	0.98	0.99 26	0.99	0.99
Processed Meat	Average Number	0.99	0.99	0.99	1.00	0.99	0.99	1.00	0.99	0.99	1.00	0.99 341	0.99 370
Fresh Poultry	Average Number	0.82	0.98 134	0.98 140	0.99	0.99 117	0.99 129	1.00	0.97 42	0.98	0.95	0.99 293	0.98 317
Fresh Produce	Average Number	0.96	0.97 153	0.97	0.96	0.97 133	0.97 147	0.98	0.97 52	0.97 58	0.96 29	0.97 338	0.97 367
Dairy Products	Average Number	1.00	1.00 154	1.00 163	1.00	1.00 137	1.00 151	1.00	1.00 54	1.00 60	1.00 29	1.00 345	1.00 374
Eggs	Average Number	1.00	1.00 153	1.00	1.00 13	0.99 133	0.99	1.00	0.98 54	0.98	1.00 28	0.99 340	0.99 368
Breads	Average Number	1.00	1.00	1.00 156	1.00	1.00 138	1.00 152	1.00	0.99	0.99 61	1.00 27	1.00 342	1.00 369
Frozen Products	Average Number	0.97	1.00 153	0.99	1.00	1.00 137	1.00 151	1.00	1.00 55	1.00	0.99 29	1.00 345	1.00 374
Other Items	Average Number	1.00	1.00 154	1.00 163	1.00	1.00 138	1.00	1.00	1.00	1.00	1.00 29	1.00 347	1.00 376
ALL GROUPS	Average Number	0.98	0.99 154	0.99	0.99	0.99 138	0.99	1.00	0.99	0.99	0.99 29	0.99 347	0.99 376

277

.

#### Average Level of Freshness of Perishable Items by Degree of Urbanization, Poverty Level and Store Type

#### Large Grocery Stores

Food Group			Urban			Mixed			Rural		Total		
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat	Average Number	1.00	1.00	1.00	1.00	0.91 28	0.93	1.00	0.98	0.99	1.00	0.96	0.97 94
Processed Meat	Average Number	1.00	0.99	0.99	0.88	0.97	0.95	1.00	0.99	0.99	0.96	0.98	0.98 134
Fresh Poultry	Average Number	1.00	1.00	1.00	1.00	1.00	1.00 23	1.00	0.96 26	0.97	1.00	0.98	0.98
Fresh Produce	Average Number	0.90	0.91 30	0.90 40	0.90	0.89	0.89 47	0.96	0.96	0.96	0.91 24	0.92 118	0.92
Dairy Products	Average Number	1.00	0.99 34	0.99	1.00	0.99 39	0.99	0.98	1.00	1.00 56	0.99 26	0.99 123	0.99
Eggs	Average Number	0.99	0.95	0.96	1.00	0.99 36	0.99	1.00	0.99 50	0.99 56	1.00	0.98 119	0.98 144
Breads	Average Number	1.00	0.99	0.99 40	1.00	1.00	1.00 48	1.00	1.00	1.00 56	1.00	1.00 119	1.00 144
Frozen Products	Average Number	0.96	0.99 30	0.98	0.99 8	0.98 38	0.98	1.00	1.00 50	1.00 56	0.98	0.99 118	0.99 143
Other Items	Average Number	1.00	1.00 37	1.00	1.00	0.99	1.00	0.99	1.00	1.00	1.00 28	1.00 126	1.00 154
ALL GROUPS	Average Number	0.98	0.98 37	0.98	0.97	0.96 39	0.97 48	0.99	0.99 50	0.99 56	0.98 28	0.98	0.98 154

278

*

#### Average Level of Freshness of Perishable Items by Degree of Urbanization, Poverty Level and Store Type

### Small Grocery Stores

Food Group	,		Urban			Mixed			Rural		Total		
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat	Average Number	0.87	0.99	0.93	0.83	1.00	0.94	1.00	0.67	0.81	0.92	0.84	0.88
Processed Meat	Average Number	1.00	0.96 93	0.97	0.97	0.92	0.93	0.98	0.96	0.97	0.99 90	0.95	0.96 272
Fresh Poultry	Average Number	1.00	1.00	1.00	0	1.00	1.00	1.00	0.84	0.87	1.00	0.91	0.93
Fresh Produce	Average Number	0.86	0.85	0.86 174	0.90	0.83	0.86	0.91 22	0.88	0.89	0.88	0.85 193	0.86 300
Dairy Products	Average Number	0.99 84	1.00 139	1.00 223	0.99 28	0.98	0.98	1.00 31	1.00 57	1.00 88	0.99 143	0.99 256	0.99 399
Eggs	Average Number	0.99	0.96 118	0.97 181	1.00	0.99	0.99	0.97	0.98 54	0.98 86	0.99	0.97 217	0.98 333
Breads	Average Number	1.00	0.99 127	0.99 206	1.00 27	1.00	1.00	1.00	1.00 57	1.00	1.00 138	0.99 246	1.00 384
Frozen Products	Average Number	0.96	0.97 116	0.97 184	0.98	0.99 51	0.99 72	1.00 29	0.99 54	1.00 83	0.97	0.98 221	0.98 339
Other I tems	Average Number	0.99 93	0.99	0.99 255	0.98	0.99	0.99	1.00	1.00	1.00	0.99	0.99 290	0.99 453
ALL GROUPS	Average Number	0.97 93	0.97 162	0.97 255	0.97 34	0.97	0.97	0.98	0.97	0.97 99	0.97 163	0.97 290	0.97 453

279

### Average Level of Freshness of Perishable Items by Degree of Urbanization, Poverty Level and Store Type

# Specialty Stores

Food Group	,		Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat	Average Number	0	0.80	0.80	0	1.00	1.00	0	1.00	1.00	0	0.92	0.92
Processed Meat	Average Number	1.00	1.00	1.00 12	1.00	0.99	1.00 12	0	1.00	1.00	1.00	1.00	1.00 27
Fresh Poultry	Average Number	0	1.00	1.00	0	1.00	1.00	0	1.00	1.00	0	1.00	1.00
Fresh Produce	Average Number	0.89	0.88 17	0.89 23	1.00	0.96	0.97 14	0	0.99	0.99	0.92	0.92	0.92
Dairy Products	Average Number	1.00	0.98 24	0.98	1.00 3	1.00 20	1.00 23	0	0.99	0.99	1.00 12	0.99	0.99 62
Eggs	Average Number	1.00	1.00 24	1.00 37	0.94	1.00 12	0.98	0	1.00	1.00	0.99	1.00	1.00
Breads "	Average Number	1.00	1.00 36	1.00	1.00	1.00 30	1.00 35	1.00	1.00 10	1.00 11	1.00 17	1.00 76	1.00 93
Frozen Products	Average Number	0.92	1.00 13	0.98 17	0	1.00	1.00 11	0	1.00 2	1.00 2	0.92	1.00 26	0.99 30
Other I tems	Average Number	0.99 20	0.99 58	0.99 78	1.00	1.00 40	1.00	1.00	1.00	1.00	0.99 29	1.00 105	1.00 134
ALL GROUPS	Average Number	0.99 21	0.97	0.97 87	0.99	1.00	1.00	1.00 2	0.99 13	0.99	0.99 34	0.98 123	0.98

280

.

#### Average Level of Freshness of Perishable Items by Degree of Urbanization, Poverty Level and Store Type

#### Convenience Stores

Food Group			Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat	Average Number	0.62	1.00	0.81	1.00	0	1.00	0	0.96	0.96	0.76	0.98	0.88
Processed Meat	Average Number	0.99 29	1.00 184	0.99 213	0.89	0.96	0.95 208	1.00	0.98	0.99	0.95	0.98	0.97 485
Fresh Poultry	Average Number	1.00	1.00	1.00	0	0	0	0	1.00	1.00	1.00	1.00	1.00
Fresh Produce	Average Number	0.87	0.92	0.91 124	0.83	0.92	0.91 69	0.84	0.92	0.91 36	0.85	0.92	0.91 229
Dairy Products	Average Number	0.97	1.00 235	0.99 274	1.00	0.99 221	0.99 263	1.00	0.99	0.99 85	0.99	0.99 520	0.99 622
Eggs	Average Number	1.00	0.98 195	0.98	0.87	0.98	0.97 212	0.94	1.00	0.99 74	0.94	0.98 436	0.98 513
Breads	Average Number	1.00	1.00 228	1.00 266	1.00	1.00 223	1.00 268	1.00 20	1.00	1.00	1.00	1.00 515	1.00 618
Frozen Products	Average Number	0.96	1.00 203	0.99 234	1.00	0.99 198	0.99 234	1.00	0.99	1.00 76	0.99 84	0.99 460	0.99 544
Other I tems	Average Number	0.99	0.99 243	0.99 287	0.99	0.99 227	0.99 273	0.99 23	1.00	0.99 89	0.99	0.99 536	0.99 649
ALL GROUPS	Average Number	0.97	0.99 243	0.99 287	0.98	0.99 227	0.98 273	0.99 23	0.99	0.99	0.98	0.99	0.99 649

281

#### Average Level of Freshness of Perishable Items by Degree of Urbanization, Poverty Level and Store Type

### Grocery/Gas Outlets

Food Group	,		Urban			Mixed			Rural			Total	
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat	Average Number	0	0	0	0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Processed Meat	Average Number	0.84	0.99	0.97	0.89	0.98	0.97 73	1.00	0.98	0.99	0.93	0.98 172	0.98 206
Fresh Poultry	Average Number	0	0	0	0	0	0	1.00	1.00	1.00	1.00	1.00	1.00
Fresh Produce	Average Number	0.93	0.93 25	0.93 26	0.77	0.85	0.85	0.92	0.89	0.89	0.88	0.89	0.88 123
Dairy Products	Average Number	1.00	1.00	1.00	0.95	1.00	0.99 89	1.00	1.00 77	1.00	0.98 40	1.00 209	0.99 249
Eggs	Average Number	1.00	0.99	0.99 54	1.00	0.97 72	0.98 81	1.00	0.99 74	0.99 92	1.00	0.98 192	0.99 227
Breads	Average Number	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 78	1.00 97	1.00	1.00 205	1.00 246
Frozen Products	Average Number	1.00	0.98 53	0.99 61	0.90	0.99 67	0.98 78	1.00	1.00 63	1.00	0.97	0.99 183	0.99 218
Other Items	Average Number	1.00 12	0.99	0.99 67	0.99	1.00 78	0.99 90	1.00 19	1.00 78	1.00 97	1.00	1.00 211	1.00 254
ALL GROUPS	Average Number	0.99	0.99	0.99 67	0.96	0.98 78	0.98	0.99	0.99 78	0.99 97	0.98 43	0.99 211	0.99 254

282

### Average Level of Freshness of Perishable Items by Degree of Urbanization, Poverty Level and Store Type

### Other Stores

Food Group	,		Urban			Mixed			Rural		Total			
	Hig	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	
Fresh Meat	Average Number	1.00 2	1.00	1.00	0.75	1.00	0.94	0	1.00	1.00	0.88	1.00	0.97	
Processed Meat	Average Number	1.00	1.00	1.00	0.92	0.98	0.96 20	1.00	0.98	0.99	0.97	0.99	0.98	
Fresh Poultry	Average Number	0	0	0	1.00	1.00	1.00	0	1.00	1.00	1.00	1.00	1.00	
Fresh Produce	Average Number	0.88	0.94 31	0.91 54	0.84	0.94 39	0.92	0.99 13	0.94 23	0.96	0.90 47	0.94 93	0.92 140	
Dairy Products	Average Number	1.00	1.00	1.00 57	0.98	0.98	0.98 51	1.00	0.98	0.99 40	1.00	0.99 115	0.99 148	
Eggs	Average Number	1.00	1.00	1.00	0.98	0.97 36	0.97	0.91	0.99 24	0.97	0.97	0.99 93	0.98 126	
Breads	Average Number	1.00	0.98	0.99	0.99	1.00	1.00 42	1.00	1.00 23	1.00 33	1.00 29	0.99 100	0.99	
Frozen Products	Average Number	1.00	0.99 22	0.99 27	0.99	0.99 29	0.99	1.00	1.00 24	1.00 33	1.00 20	0.99 75	0.99 95	
Other I tems	Average Number	0.99 28	1.00	1.00	0.98 12	0.99 58	0.99 70	1.00	1.00 29	1.00	0.99	0.99 149	0.99 205	
ALL GROUPS	Average Number	0.93	0.98 79	0.96	0.94	0.97 71	0.96 87	0.99 18	0.98 33	0.98 51	0.95 71	0.97 183	0.97 254	

### Average Level of Freshness of Perishable Items by Degree of Urbanization, Poverty Level and Store Type

# All Store Types

Food Group			Urban			Mixed			Rural		Total			
		High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	
Fresh Meat	Average Number	0.89 21	0.99	0.98	0.96 27	0.98	0.98	1.00	0.96	0.96	0.95	0.98 434	0.97 504	
Processed Meat	Average Number	0.98	0.99 524	0.99 632	0.93 93	0.97 478	0.96	0.99	0.98 277	0.98 354	0.97 278	0.98	0.98	
Fresh Poultry	Average Number	0.89	0.99	0.98 159	0.99 17	1.00 146	1.00 163	1.00	0.96	0.97 93	0.97	0.99 374	0.98 415	
Fresh Produce	Average Number	0.88	0.92 468	0.91 603	0.89	0.92 358	0.92 427	0.93 60	0.93 252	0.93 312	0.89 264	0.92 1078	0.92 1342	
Dairy Products	Average Number	0.99	1.00	0.99 860	0.99 118	0.99	0.99 713	1.00 93	0.99 337	1.00 430	0.99 385	0.99	0.99 2003	
Eggs	Average Number	1.00	0.98 602	0.99 753	0.95	0.98 317	0.98 608	0.97 89	0.99 317	0.99 406	0.98 331	0.98 1436	0.98	
Breads	Average Number	1.00	1.00	1.00 830	1.00	1.00 602	1.00 722	1.00	1.00 337	1.00 431	1.00 380	1.00 1603	1.00 1983	
Frozen Products	Average Number	0.96	0.99 590	0.99 726	0.98 96	0.99 531	0.99 627	1.00 83	1.00 307	1.00 390	0.98 315	0.99 1428	0.99 1743	
Other Items	Average Number	0.99 219	0.99 771	0.99 990	0.99	0.99 645	0.99 779	1.00	1.00 348	1.00 456	0.99 461	0.99 1764	0.99 2225	
ALL GROUPS	Average Number	0.97 229	0.98 796	0.98 1025	0.97	0.98 662	0.98 804	0.99 110	0.98 358	0.99	0.97 481	0.98 1816	0.98 2297	

## Percent of Retailers Selling Specific Types of Food by Type of Food Sold, Degree of Urbanization, Poverty Level and Store Type

### Supermarkets

Types of Food Sold	1	Mixed			1	Rural		Total				
	High- poverty	Other	Total									
Sells Bread	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sells Fresh Bread	100.00	99.32	99.35	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.69	99.71
Sells Milk	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sells Fresh Milk	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sells Produce	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sells Fresh Produce	100.00	100.00	100.00	100.00	99.30	99.36	100.00	96.46	96.79	100.00	99.18	99.24
Sells Meat	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sells Fresh Meat	100.00	99.29	99.32	100.00	100.00	100.00	100.00	98.23	98.40	100.00	99.40	99.45
Number of Stores	9	154	163	14	138	152	6	55	61	29	347	376

#### Large Grocery Stores

Types of Food Sold	Urban			Mixed				Rural		Total		
**	High- poverty	Other	Total									
Sells Bread	100.00	97.49	98.13	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.24	99.38
Sells Fresh Bread	84.17	94.64	91.96	100.00	100.00	100.00	100.00	100.00	100.00	92.40	98.38	97.32
Sells Milk	100.00	94.58	95.97	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.36	98.65
Sells Fresh Milk	100.00	91.87	93.95	100.00	100.00	100.00	100.00	100.00	100.00	100.00	97.54	97.98
Sells Produce	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sells Fresh Produce	92.42	94.68	94.10	88.64	100.00	97.95	100.00	100.00	100.00	92.81	98.39	97.40
Sells Neat	100.00	97.49	98.13	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.24	99.38
Sells Fresh Meat	92.13	86.55	87.98	88.64	97.43	95.85	100.00	98.03	98.23	92.67	94.38	94.08
Number of Stores	13	37	50	9	39	48	6	50	56	28	126	154

285

## Percent of Retailers Selling Specific Types of Food by Type of Food Sold, Degree of Urbanization, Poverty Level and Store Type

### Small Grocery Stores

Types of Food Sold	Urban			Mixed				Rural		Total		
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Sells Bread	100.00	99.38	99.60	97.14	98.49	98.04	100.00	98.34	98.92	99.42	98.96	99.12
Sells Fresh Bread	92.33	89.08	90.25	88.50	96.93	94.12	94.42	93.83	94.04	92.00	91.82	91.88
Sells Milk	94.52	96.42	95.74	97.14	98.49	98.04	97.21	96.87	96.99	95.62	96.98	96.50
Sells Fresh Milk	93.40	94.60	94.17	88.50	93.98	92.15	91.71	96.87	95.05	92.05	94.94	93.92
Sells Produce	100.00	100.00	100.00	100.00	98.49	99.00	100.00	98.34	98.92	100.00	99.31	99.56
Sells Fresh Produce	84.18	86.27	85.52	65.18	84.88	78.32	80.97	86.40	84.48	79.65	85.99	83.76
Sells Meat	96.86	97.47	97.25	100.00	95.33	96.88	100.00	98.34	98.92	98.17	97.18	97.53
Sells Fresh Meat	71.98	66.77	68.64	38.11	60.41	52.98	74.98	75.15	75.09	65.75	67.15	66.66
Number of Stores	93	162	255	34	66	100	36	64	100	163	292	455

### Specialty Stores

Types of Food Sold		Mixed				Rural		Total				
÷	High- poverty	Other	Total									
Sells Bread	63.27	72.71	70.09	54.14	70.39	68.07	100.00	61.31	64.99	62.66	70.60	68.90
Sells Fresh Bread	47.86	60.64	57.10	54.14	59.67	58.88	50.68	61.31	60.30	49.46	60.35	58.02
Sells Milk	50.80	45.23	46.78	55.94	44.22	45.90	0	55.62	50.32	49.89	45.97	46.80
Selle Fresh Hilk	47.43	45.23	45.84	55.94	44.22	45.90	0	55.62	50.32	47.45	45.97	46.28
Selle Produce	53.63	69.78	65.29	72.51	64.27	65.45	100.00	44.45	49.74	60.02	64.94	63.89
Sells Fresh Produce	32.03	37.76	36.17	36.61	36.37	36.41	0	33.29	30.12	31.77	36.74	35.68
Salls Meat	78.32	64.98	68.69	72.27	56.44	58.71	49.32	60.81	59.72	75.68	61.27	64.34
Sells Fresh Meat	78.32	63.84	67.86	54.26	54.90	54.81	49.32	55.19	54.63	71.43	59.49	62.03
Number of Stores	32	82	114	11	64	75	2	18	20	45	164	209

286
# Percent of Retailers Selling Specific Types of Food by Type of Food Sold, Degree of Urbanization, Poverty Level and Store Type

#### Convenience Stores

Types of Food Sold		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
Sells Bread	100.00	99.63	99.69	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.83	99.86
Sells Fresh Bread	100.00	97.52	97.89	97.90	99.12	98.91	95.75	98.46	97.77	98.31	98.30	98.30
Sells Milk	100.00	98.83	99.00	100.00	99.56	99.63	95.75	100.00	98.92	99.15	99.27	99.25
Sells Fresh Milk	95.82	98.83	98.38	93.69	99.56	98.59	95.75	100.00	98.92	94.95	99.27	98.54
Sells Produce	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sells Fresh Produce	80.74	87.55	86.54	67.82	79.59	77.66	78.48	85.39	83.63	75.10	83.98	82.48
Sells Meat	100.00	98.81	98.99	97.90	98.68	98.55	100.00	100.00	100.00	99.15	98.90	98.94
Sells Fresh Meat	57.11	56.32	56.44	47.87	50.47	50.04	43.34	65.06	59.54	50.65	54.92	54.20
Number of Stores	44	244	288	46	227	273	23	66	89	113	537	650

#### Grocery/Gas Outlets

Types of Food Sold		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
Sells Bread	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sells Fresh Bread	100.00	98.20	98.50	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.51	99.59
Sells Milk	91.24	100.00	98.52	100.00	100.00	100.00	100.00	100.00	100.00	97.54	100.00	99.60
Sells Fresh Milk	91.24	100.00	98.52	100.00	100.00	100.00	100.00	98.71	98.96	97.54	99.54	99.21
Sells Produce	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Sells Fresh Produce	26.61	85.08	75.21	59.09	87.49	83.80	74.43	82.44	80.89	56.72	85.02	80.37
Sells Meat	91.24	100.00	98.52	100.00	100.00	100.00	100.00	100.00	100.00	97.54	100.00	99.60
Sells Fresh Meat	66.52	55.66	57.49	75.50	75.45	75.46	79.53	74.63	75.57	74.75	69.79	70.60
Number of Stores	12	55	67	12	78	90	19	78	97	43	211	254

287

# Percent of Retailers Selling Specific Types of Food by Type of Food Sold, Degree of Urbanization, Poverty Level and Store Type

#### Other Stores

Types of Food Sold		Urban			Mixed			Rural			Total	
Sells Bread	High- poverty	Other	Total									
Sells Bread	60.18	78.00	72.19	63.86	73.52	71.75	68.48	87.84	80.91	62.94	77.77	73.60
Sells Fresh Bread	45.56	70.95	62.68	58.50	66.13	64.73	57.72	87.84	77.05	51.35	71.71	65.99
Sells Milk	57.92	72.18	67.54	58.50	73.57	70.80	73.65	88.07	82.91	61.66	75.29	71.46
Sells Fresh Milk	55.49	67.69	63.72	58.50	71.20	68.87	68.56	88.07	81.09	59.18	72.38	68.67
Sells Produce	88,15	90.38	89.65	94.78	92.70	93.08	94.69	97.16	96.27	91.19	92.40	92.06
Sells Fresh Produce	78.53	68.07	71.48	84.61	67.34	70.51	79.32	88.51	85.22	80.12	71.05	73.60
Sells Meat	43.49	63.54	57.01	58.01	57.75	57.80	68.13	84.83	78.85	52.50	64.61	61.21
Sells Fresh Meat	19.46	34.08	29.32	36.91	35.83	36.03	42.00	67.26	58.22	28.67	40.11	36.89
Number of Stores	42	85	127	19	82	101	19	33	52	80	200	280

### All Store Types

Types of Food Sold		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
Sells Bread	88.31	94.64	93.21	91.08	93.99	93.50	94.62	96.66	96.19	90.45	94.78	93.89
Sells Fresh Bread	79.99	89.65	87.46	87.68	91.69	91.01	89.21	95.59	94.13	84.15	91.51	89.99
Sells Hilk	83.78	90.32	88.84	90.51	91.43	91.28	91.93	96.14	95.18	87.44	91.82	90.92
Sells Fresh Milk	81.75	89.37	87.65	86.48	90.73	90.01	89.27	95.87	94.36	84.70	91.09	89.77
Sells Produce	91.85	95.97	95.04	97.22	95.69	95.95	99.09	96.66	97.21	94.92	96.00	95.78
Sells Fresh Produce	74.05	82.79	80.82	70.69	80.62	78.95	79.66	86.33	84.80	74.30	82.67	80.94
Sells Meat	85.82	91.74	90.40	91.69	90.10	90.37	93.66	96.36	95.75	89.17	92.02	91.43
Sells Fresh Meat	62.99	66.26	65.52	54.44	65.41	63.56	65.80	78.19	75.36	61.17	68.20	66.75
Number of Stores,	245	819	1064	145	694	839	111	364	475	501	1877	2378

288

# Percent of Retailers Meeting Staple Food Requirements by Degree of Urbanization, Poverty Level and Store Type

# Supermarkets

lumber of Food Categories Sold		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
Sells food in all four categories	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Number of categories in which perishable items are sold												
0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	1.77	1.60	0	0.27	0.25
3	0	1.40	1.32	0	0.70	0.64	0	1.77	1.60	0	1.18	1.09
4	100.00	98.60	98.68	100.00	99.30	99.30	100.00	90.40	90.79	100.00	98.55	98.65
Sells food in less than all four categories	0	0	0	0	0	0	0	0	0	0	0	0
Number of categories in which perishable items are sold												
0 · .	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
Number of stores	9	154	163	14	138	152	6	55	61	29	347	376

.

289

# Percent of Retailers Meeting Staple Food Requirements by Degree of Urbanization, Poverty Level and Store Type

### Large Grocery Stores

Number of Food Categories Sold		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Sells food in all four categories	100.00	92.07	94.10	100.00	100.00	100.00	100.00	100.00	100.00	100.00	97.60	98.03
Number of categories in which perishable items are sold												
0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	7 55	0	2 00
2	24 20	5.52	4.11	11.30	2 67	2.05	0	1 07	1 1 77	3.33	1.0/	5.77
34	68.71	80.99	77.85	88.64	97.43	95.85	100.00	98.03	98.23	81.43	92.70	90.69
Sells food in less than all four categories	0	7.93	5.90	0	0	0	0	0	0	0	2.40	1.97
Number of categories in which perishable items are sold												•
0.	0	0	0	0	0	0	0	0	0	0	0	0
1	0	2.51	1.87	0	0	0	0	0	0	0	0.76	0.62
2	0	2.71	2.02	0	0	0	0	0	0	0	0.82	0.67
3	0	2.71	2.02	0	0	0	0	0	0	0	0.82	0.67
4	0	0	0	0	0	0	0	0	0	0	0	0
Number of stores	13	37	50	9	39	48	6	50	56	28	126	154

290

# Percent of Retailers Meeting Staple Food Requirements by Degree of Urbanization, Poverty Level and Store Type

# Small Grocery Stores

Number of Food Categories Sold		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
Sells food in all four categories	93.48	93.89	93.74	97.14	95.33	95.93	97.21	96.87	96.99	95.02	94.84	94.90
Number of categories in which perishable items are sold												
0	1.11	0.62	0.80	8.65	0	2.88	2.79	0	0.98	3.00	0.35	1.29
1	1.07	1.22	1.17	0	1.41	0.94	0	2.92	1.89	0.63	1.63	1.27
2	1.20	8.09	1.19	20.40	9.1/	12.94	8.10	0.09	0.80	10.12	7.90	8.08
3	10.35	21.44	23.40	32.19	27.34	29.10	19.41	15./5	17.04	20.35	24.94	25.31
•	07.09	20.32	60.55	35.25	57.40	50.02	00.91	12.11	10.21	60.95	60.02	60.35
Sells food in less than all four categories	6.52	6.11	6.26	2.86	4.67	4.07	2.79	3.13	3.01	4.98	5.16	5.10
Number of categories in which perishable items are sold												
0.	3.24	0.62	1.57	2.86	3.07	3.00	2.79	1.66	2.06	3.07	1.38	1.98
1	1.07	1.20	1.16	0	0	0	0	1.46	0.95	0.63	0.99	0.86
2	1.17	3.11	2.41	0	0	0	0	0	0	0.68	1.76	1.38
3	1.03	1.17	1.12	0	1.60	1.07	0	0	0	0.60	1.02	0.87
4	0	0	0	0	0	0	0	0	0	0	0	0
Number of stores	93	162	255	34	66	100	36	64	100	163	292	455

291

+

# Percent of Retailers Meeting Staple Food Requirements by Degree of Urbanization, Poverty Level and Store Type

# Specialty Stores

Number of Food Categories Sold		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
Sells food in all four categories	38.46	29.40	31.91	18.37	31.71	29.80	0	27.74	25.10	32.11	30.10	30.53
Number of categories in which perishable items are sold												
0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0
2	3.37	0	0.94	0	0	0	0	0	0	2.43	0	0.52
3	12.43	9.81	10.54	9.24	12.63	12.14	0	11.17	10.10	11.16	11.03	11.06
4	22.66	19.59	20.44	9.12	19.09	17.66	0	16.57	14.99	18.52	19.07	18.95
Sells food in less than all four categories	61.54	70.60	68.09	81.63	68.29	70.20	100.00	72.26	74.90	67.89	69.90	69.47
Number of categories in which perishable items are sold												
0	9.06	1.22	3.40	8.76	20.27	18.52	0	0	0	8.61	8.38	8.43
1	37.08	45.23	42.97	18.25	27.74	26.38	100.00	38.90	44.72	35.28	37.86	37.31
2	12.31	17.99	16.41	45.38	7.63	13.04	0	33.36	30.18	19.59	15.69	16.52
i	3.10	6.16	5.31	9.24	12.65	12.16	0	0	0	4.42	7.98	7.22
4	0	0	0	0	0	0	0	0	0	0	0	0
Number of stores	32	82	114	11	64	75	2	18	20	45	164	209

292

# Percent of Retailers Meeting Staple Food Requirements by Degree of Urbanization, Poverty Level and Store Type

### Convenience Stores

Number of Food Categories Sold		Urban			Mixed			Rural		1	Total	
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Sells food in all four categories	100.00	97.64	97.99	97.90	98.68	98.55	95.75	100.00	98.92	98.31	98.36	98.35
Number of categories in which perishable items are sold												
0	0	0	0	2.10	0	0.35	0	0	0	0.85	0	0.14
1	4.18	0.43	0.99	4.21	0.44	1.06	0	0	0	3.36	0.38	0.89
2	10.70	6.96	7.52	17.27	12.63	13.39	13.03	8.83	9.90	13.80	9.54	10.27
3	32.40	39.42	38.38	32.93	42.50	40.93	43.63	33.44	36.03	34.85	39.99	39.12
4	52.73	50.82	51.11	41.38	43.11	42.83	39.09	57.73	53.00	45.45	48.44	47.93
Sells food in less than all four categories	0	2.36	2.01	2.10	1.32	1.45	4.25	0	1.08	1.69	1.64	1.65
Number of categories in which perishable items are sold												
0	0	0.42	0.35	0	0	0	4.25	0	1.08	0.85	0.19	0.30
1	0	0.39	0.33	0	0	0	0	0	0	0	0.18	0.15
2	0	0.75	0.64	2.10	0.88	1.08	0	0	0	0.85	0.72	0.74
3	0	0.80	0.68	0	0.44	0.36	0	0	0	0	0.55	0.46
4	0	0	0	0	0	0	0	0	0	0	0	0
Number of stores	44	244	288	46	227	273	23	66	89	113	537	650

\$

# Percent of Retailers Meeting Staple Food Requirements by Degree of Urbanization, Poverty Level and Store Type

### Grocery/Gas Outlets

Number of Food Categories Sold		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Sells food in all four categories	91.24	100.00	98.52	100.00	100.00	100.00	100.00	100.00	100.00	97.54	100.00	99.60
Number of categories in which perishable items are sold												
0	0	0	0	0	0	0	0	0	0	0	0	0
1	45.04	15 10	15 2/	14 00	6 7/	7 40	20 /7	1.29	1.04	17 07	0.40	13.94
2	57 43	10.10	75 74	10.00	24 38	25 54	5 10	10.25	0.25	27 67	21.04	22 18
4	17.85	54.03	47.92	50.67	69.28	66.86	74.43	73.41	73.61	51.90	66.64	64.22
Sells food in less than all four categories	8.76	0	1.48	0	0	0	0	0	0	2.46	0	0.40
Number of categories in which perishable items are sold												
0	0	0	0	0	0	0	0	0	0	0	0	0
1	8.76	0	1.48	0	0	0	0	0	0	2.40	0	0.40
2	0	0	0	0	0	0	0	0	0	0		0
4	0	o	ő	0	0	o	0	Ő	o	o	ō	Ō
Number of stores	12	55	67	12	78	90	19	78	97	43	211	254

294

# Percent of Retailers Meeting Staple Food Requirements by Degree of Urbanization, Poverty Level and Store Type

#### Other Stores

lumber of Food Categories Sold		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
ells food in all four ategories umber of categories in which	29.14	51.75	44.39	47.84	54.08	52.94	63.03	81.75	75.05	41.24	57.50	52.93
Number of categories in which perishable items are sold												
0	0	0	0	0	1.24	1.01	0	0	0	0	0.50	0.36
1	0	2.34	1.58	0	2.37	1.93	5.10	0	1.83	1.17	1.98	1.75
2	2.53	9.36	7.13	0	6.13	5.00	5.31	8.65	7.45	2.58	7.94	6.43
3	19.16	15.52	16.71	16.02	13.43	13.90	15.79	8.93	11.38	17.66	13.62	14.75
4	7.46	24.53	18.97	31.82	30.93	31.09	36.83	64.18	54.39	19.84	33.47	29.64
Sells food in less than all four categories	70,86	48.25	55,61	52.16	45.92	47.06	36.97	18.25	24.95	58.76	42.50	47.07
Number of categories in which perishable items are sold												
0 .	4.66	3.53	3.90	5.22	3.57	3.88	10.41	0	3.73	6.11	2.98	3.86
1	32.81	24.23	27.02	36.28	26.45	28.25	15.93	11.93	13.36	29.76	23.15	25.01
2	26.29	10.65	15.75	5.08	12.25	10.93	10.6?	0	3.80	17.77	9.59	11.89
3	7.10	9.84	8.95	5.57	3.65	4.00	0	6.32	4.06	5.12	6.77	6.31
4	0	0	0	0	0	0	0	0	0	0	0	0
Number of stores	42	85	127	19	82	101	19	33	52	80	200	280

295

# Percent of Retailers Meeting Staple Food Requirements by Degree of Urbanization, Poverty Level and Store Type

# All Store Types

Number of Food Categories Sold		Urban			Mixed			Rural			Total	
	Nigh- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Sells food in all four categories	76.81	85.64	83.65	85.58	87.39	87.08	90.11	94.16	93.24	82.15	87.89	86.70
Fumber of categories in which perishable items are sold	0.42	0.12	0.19	2.69	0.15	0.58	0.91		0.21	1.17	0.11	0.33
1	1.15	0.61	0.74	1.34	0.56	0.69	0.87	0.79	0.81	1.14	0.63	0.73
2	6.30	5.91	5.99	12.31	6.43	7.42	9.74	6.90	7.55	8.74	6.28	6.79
3	21.30	22.32	22.09	23.69	22.25	22.49	18.94	12.89	14.27	21.47	20.52	20.71
4	47.63	56.68	54.64	45.55	58.00	55.91	59.66	73.59	70.41	49.63	60.35	58.14
Sells food in less than all four categories	23.19	14.36	16.35	14.42	12.61	12.92	9.89	5.84	6.76	17.85	12.11	13.30
Number of categories in which perishable items are sold												
0 .	3.23	0.74	1.30	2.02	2.59	2.49	3.56	0.29	1.04	2.96	1.33	1.66
1	11.35	7.51	8.38	6.16	5.69	5.77	4.51	3.29	3.57	8.41	6.05	6.54
2	6.59	3.87	4.49	4.80	2.44	2.84	1.81	1.68	1.71	5.06	2.94	3.37
3	2.02	2.23	2.19	1.44	1.89	1.82	0	0.57	0.44	1.42	1.80	1.72
4	0	0	0	0	0	0	0	0	0	0	0	0
Number of stores	245	819	1064	145	694	839	111	364	475	501	1877	2378

296

*

### Percentage Distribution of Retailers Meeting the Staple Food Gross Sales Requirement by Degree of Urbanization, Poverty Level and Store Type

#### Supermarkets

ross Sales Category		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
No fresh items supplied Under 50 percent Over 50 percent	000	000	000	000	0000	000	000	0000	000	000	0000	0000
One fresh item supplied Under 50 percent Over 50 percent	000	000	000	0000	0000	000	000	000	000	0000	0000	0000
Two fresh items supplied Under 50 percent Over 50 percent	000	000	0 0 0	0000	000	000	000	1.77 0 1.77	1.60 0 1.60	000	0.27 0 0.27	0.25
Three or more fresh items Under 50 percent Over 50 percent	100.00 11.91 88.09	100.00 3.96 96.04	100.00 4.39 95.61	100.00 0 100.00	100.00 8.64 91.36	100.00 7.88 92.12	100.00 0 100.00	98.23 8.83 89.40	98.40 7.99 90.40	100.00 3.83 96.17	99.73 6.54 93.18	99.75 6.34 93.40
Number of stores	9	154	163	14	138	152	6	55	61	29	347	376

#### Large Grocery Stores

Gross Sales Category		Urben			Mixed			Rural			Total	
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
NUMITENS No fresh items supplied Under 50 percent Over 50 percent	000	0000	000	0000	000	000	000	000	000	000	000	0000
One fresh item supplied Under 50 percent Over 50 percent	000	2.51 0 2.51	1.87 0 1.87	000	000	000	0000	000	000	000	0.76 0 0.76	0.62 0 0.62
Two fresh items supplied Under 50 percent Over 50 percent	000	8.23 2.81 5.42	6.12 2.09 4.03	11.36 11.36 0	000	2.05 2.05 0	0000	000	000	3.55 3.55 0	2.49 0.85 1.64	2.68 1.33 1.35
Three or more fresh items Under 50 percent Over 50 percent	100.00 7.87 92.13	89.26 8.13 81.12	92.01 8.06 83.94	88.64 11.06 77.58	100.00 15.49 84.51	97.95 14.69 83.26	100.00 0 100.00	100.00 18.05 81.95	100.00 16.19 83.81	96.45 7.24 89.22	96.76 14.27 82.49	96.70 13.01 83.69
Number of stores	13	37	50	9	39	48	6	50	56	28	126	154

297

#### Percentage Distribution of Retailers Meeting the Staple Food Gross Sales Requirement by Degree of Urbanization, Poverty Level and Store Type

Gross Sales Category Urban Mixed Rural Total High-Nigh-High-High-Total poverty Other Total poverty Other Total Other Total Other poverty poverty NUMITEMS 6.07 1.74 11.50 3.07 5.88 5.58 1.66 3.05 3.26 No fresh items supplied 4.36 1.25 2.36 0 1.66 1.08 0 0.35 0.23 0 0 Under 50 percent 0 0 0 0 1.97 3.03 5.58 0 6.07 1.38 2.36 11.50 3.07 5.88 Over 50 percent 4.36 1.25 0 4.38 2.84 1.25 2.62 2.14 0.94 2.43 2.33 0 1.41 One fresh item supplied 2.16 0.95 0.63 1.32 1.07 1.07 1.22 1.17 0 1.41 0.94 0 1.46 Under 50 percent 0 2.92 0.63 1.30 1.06 1.89 1.07 1.20 1.16 0 0 0 Over 50 percent 9.17 12.94 8.10 6.09 6.80 10.80 9.67 10.07 8.43 11.20 10.20 20.46 Two fresh items supplied 0.98 1.15 3.45 2.64 Under 50 percent 1.52 0.98 3.75 2.75 2.86 4.52 3.96 0 7.43 7.45 5.82 7.45 17.61 4.65 8.97 8.10 4.57 9.65 6.22 7.45 Over 50 percent 87.32 81.88 85.98 84.53 86.35 80.25 86.32 87.86 85.07 85.13 85.11 68.04 Three or more fresh items 13.21 22.27 29.82 27.15 11.59 17.09 15.15 11.93 13.85 13.57 11.42 7.58 Under 50 percent 69.38 58.04 60.16 70.29 68.89 72.50 67.04 64.05 77.49 71.56 73.69 56.10 Over 50 percent 163 455 100 36 64 100 292 255 34 66 93 162 Number of stores

#### Small Grocery Stores

#### Specialty Stores

iross Sales Category		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
NUMITENS No fresh items supplied Under 50 percent Over 50 percent	9.06 0 9.06	1.22 0 1.22	3.40 0 3.40	8.76 0 8.76	20.27 3.13 17.14	18.62 2.68 15.94	000	000	000	8.61 0 8.61	8.38 1.20 7.18	8.43 0.94 7.48
One fresh item supplied Under 50 percent Over 50 percent	37.08 0 37.08	45.23 1.21 44.03	42.97 0.87 42.10	18.25 0 18.25	27.74 6.16 21.58	26.38 5.28 21.10	100.00 0 100.00	38.90 5.33 33.57	44.72 4.83 39.90	35.28 0 35.28	37.86 3.55 34.31	37.31 2.79 34.52
Two fresh items supplied Under 50 percent Over 50 percent	15.68 0 15.68	17.99 0 17.99	17.35 0 17.35	45.38 0 45.38	7.63 0 7.63	13.04 0 13.04	000	33.36 11.24 22.12	30.18 10.17 20.01	22.03 0 22.03	15.69 1.21 14.47	17.04 0.95 16.08
Three or more fresh items Under 50 percent Over 50 percent	38.18 0 38.18	35.56 1.24 34.32	36.29 0.89 35.39	27.61 0 27.61	44.36 0 44.36	41.96 0 41.96	000	27.74 0 27.74	25.10 0 25.10	34.09 0 34.09	38.08 0.63 37.45	37.23 0.50 36.73
Number of stores	32	82	114	11	64	75	2	18	20	45	164	209

298

#### Percentage Distribution of Retailers Meeting the Staple Food Gross Sales Requirement by Degree of Urbanization, Poverty Level and Store Type

#### Convenience Stores

Gross Sales Category		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
NUMITENS No fresh items supplied Under 50 percent Over 50 percent	000	0.42 0 0.42	0.35 0 0.35	2.10 0 2.10	0 0 0	0.35 0 0.35	4.25 0 4.25	000	1.08 0 1.08	1.69 0 1.69	0.19 0 0.19	0.45
One fresh item supplied Under 50 percent Over 50 percent	4.18 4.18 0	0.82 0.43 0.39	1.32 0.99 0.33	4.21 2.10 2.10	0.44 0.44 0	1.06 0.71 0.35	0000	0 0 0	0000	3.36 2.51 0.85	0.56 0.38 0.18	1.04 0.74 0.29
Two fresh items supplied Under 50 percent Over 50 percent	10.70 6.53 4.18	7.71 4.01 3.71	8.16 4.38 3.78	19.38 10.78 8.59	13.51 9.99 3.52	14.47 10.12 4.36	13.03 4.54 8.49	8.83 5.88 2.95	9.90 5.54 4.36	14.65 7.84 6.81	10.26 6.72 3.54	11.00 6.91 4.09
Three or more fresh items Under 50 percent Over 50 percent	85.12 27.78 57.34	91.05 39.10 51.95	90.17 37.41 52.76	74.31 39.59 34.72	86.05 53.57 32.48	84.12 51.27 32.85	82.72 56.89 25.83	91.17 54.37 36.80	89.03 55.01 34.02	80.30 38.32 41.98	88.98 46.95 42.04	87.51 45.48 42.03
Number of stores	44	244	288	46	227	273	23	66	89	113	537	650

#### Grocery/Gas Outlets

.

iross Sales Category		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
NUMITEMS No fresh items supplied Under 50 percent Over 50 percent	000	0000	0000	0000	0000	000	000	0000	0000	000	0 0 0	000
One fresh item supplied Under 50 percent Over 50 percent	8.76 8.76 0	0000	1.48 1.48 0	0 0 0	000	000	000	1.29 1.29 0	1.04 1.04 0	2.46 2.46 0	0.46 0.46 0	0.79 0.79 0
Two fresh items supplied Under 50 percent Over 50 percent	15.96 7.98 7.98	15.10 15.10 0	15.24 13.90 1.35	16.08 16.08 0	6.34 5.14 1.19	7.60 6.56 1.04	20.47 15.37 5.10	15.06 12.50 2.56	16.10 13.05 3.05	17.97 13.50 4.48	11.86 10.49 1.36	12.86 10.99 1.87
Three or more fresh items Under 50 percent Over 50 percent	75.28 42.57 32.71	84.90 70.41 14.49	83.28 65.71 17.57	83.92 42.02 41.91	93.66 58.92 34.75	92.40 56.72 35.68	79.53 53.05 26.49	83.66 61.84 21.82	82.86 60.14 22.72	79.57 47.01 32.56	87.68 63.09 24.59	86.35 60.45 25.90
Number of stores	12	55	67	12	78	90	19	78	97	43	211	254

299

### Percentage Distribution of Retailers Meeting the Staple Food Gross Sales Requirement by Degree of Urbanization, Poverty Level and Store Type

#### Other Stores

iross Sales Category		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
NUMITEMS No fresh items supplied Under 50 percent Over 50 percent	4.66 0 4.66	3.53 1.19 2.34	3.90 0.80 3.10	5.22 5.22 0	4.81 2.37 2.44	4.89 2.89 2.00	10.41 10.41 0	000	3.73 3.73 0	6.11 3.60 2.51	3.48 1.48 2.01	4.22 2.07 2.15
One fresh item supplied Under 50 percent Over 50 percent	32.81 4.84 27.97	26.57 5.65 20.91	28.60 5.39 23.21	36.28 5.08 31.20	28.81 3.62 25.19	30.18 3.89 26.29	21.03 0 21.03	11.93 0 11.93	15.19 0 15.19	30.92 3.79 27.13	25.13 3.93 21.20	26.76 3.89 22.87
Two fresh items supplied Under 50 percent Over 50 percent	28.81 2.47 26.35	20.01 5.94 14.07	22.88 4.81 18.07	5.08 0 5.08	18.38 7.25 11.12	15.94 5.92 10.01	15.93 5.31 10.62	8.65 8.65 0	11.26 7.45 3.80	20.35 2.54 17.80	17.53 6.91 10.62	18.32 5.68 12.64
Three or more fresh items Under 50 percent Over 50 percent	33.71 12.03 21.68	49.89 10.51 39.38	44.62 11.00 33.62	53.41 16.16 37.26	48.00 13.46 34.54	49.00 13.95 35.04	52.62 31.37 21.25	79.42 30.21 49.21	69.83 30.63 39.20	42.62 17.41 25.21	53.86 14.86 39.00	50.70 15.58 35.13
Number of stores	42	85	127	19	82	101	19	33	52	80	200	280

### All Store Types

iross Sales Category		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
NUNITEMS No fresh items supplied Under 50 percent Over 50 percent	3.66 0 3.66	0.86 0.12 0.74	1.49 0.10 1.40	4.72 0.69 4.03	2.73 0.57 2.16	3.07 0.59 2.48	4.47 1.78 2.69	0.29 0.29 0	1.25 0.63 0.62	4.13 0.58 3.56	1.43 0.32 1.12	1.99 0.37 1.62
One fresh item supplied Under 50 percent Over 50 percent	12.50 2.39 10.11	8.13 1.08 7.05	9.12 1.38 7.74	7.50 1.34 6.16	6.25 1.27 4.97	6.46 1.28 5.17	5.38 0 5.38	4.08 0.80 3.28	4.38 0.62 3.76	9.56 1.58 7.97	6.68 1.10 5.58	7.27 1.20 6.08
Two fresh items supplied Under 50 percent Over 50 percent	12.89 2.33 10.55	9.78 3.69 6.09	10.48 3.38 7.10	17.11 6.13 10.98	8.87 5.13 3.75	10.26 5.29 4.96	11.55 4.47 7.08	8.57 5.32 3.26	9.25 5.12 4.13	13.80 3.87 9.93	9.22 4.52 4.70	10.17 4.38 5.78
Three or more fresh items Under 50 percent Over 50 percent	70.96 12.75 58.20	81.23 21.34 59.89	78.91 19.40 59.51	70.68 21.65 49.03	82.15 29.60 52.54	80.22 28.27 51.95	78.60 33.46 45.14	87.05 34.72 52.33	85.12 34.44 50.69	72.52 19.72 52.80	82.66 26.88 55.79	80.57 25.40 55.17
Number of stores	245	819	1064	145	694	839	111	364	475	501	1877	2378

300

# Percentage Distribution of Retailers by Types of Full Service Departments, Degree of Urbanization, Poverty Level and Store Type

### Supermarkets

Full Service Departments		Urban			Mixed			Rural			Total	
number dell	High- poverty	Other	Total									
Service deli	56.31	74.38	73.42	57.69	74.85	73.32	49.77	56.79	56.12	55.65	71.85	70.65
Service bakery	10.21	63.37	60.53	57.69	61.71	61.35	49.77	35.02	36.42	40.85	58.34	57.05
Service meat	78.58	78.42	78.42	100.00	74.57	76.83	100.00	80.61	82.45	93.12	77.25	78.43
Service seafood	22.27	69.48	66.96	21.87	34.91	33.75	0	20.31	18.38	17.58	48.37	46.09
Service floral	0	42.75	40.46	21.30	35.44	34.18	16.44	13.08	13.40	13.48	35.31	33.69
Pharmacy Average number of	0	26.88	25.45	7.35	13.81	13.24	0	7.34	6.65	3.51	18.76	17.63
departments	1.67	3.55	3.45	2.66	2.95	2.93	2.16	2.13	2.13	2.24	3.10	3.04
Number of stores	9	154	163	14	138	152	6	55	61	29	347	376

#### Large Grocery Stores

Full Service Departments		Urban			Mixed			Rural			Total	
1.2	High- poverty	Other	Total									
Service deli	38.96	43.14	42.07	22.12	51.64	46.31	32.89	40.67	39.87	32.44	44.79	42.59
Service bakery	8.06	2.94	4.25	11.36	12.80	12.54	0	12.19	10.94	7.42	9.58	9.20
Service meat	54.89	51.27	52.20	66.37	56.35	58.16	100.00	70.71	73.73	67.83	60.42	61.74
Service seafood	15.55	16.83	16.50	0	12.93	10.59	0	6.06	5.43	7.47	11.42	10.72
Service floral	0	2.94	2.19	0	0	0	0	0	0	0	0.89	0.73
Pharmacy	0	0	0	0	0	0	0	0	0	0	0	0
Average number of												
departments	1.17	1.17	1.17	1.00	1.34	1.28	1.33	1.30	1.30	1.15	1.27	1.25
Number of stores	13	37	50	9	39	48	6	50	56	28	126	154

-

# Percentage Distribution of Retailers by Types of Full Service Departments, Degree of Urbanization, Poverty Level and Store Type

Full Service Departments		Urban			Mixed			Rural			Total	
	High- poverty	Other	Total									
Service deli	42.79	42.88	42.85	23.24	35.30	31.28	14.05	34.84	27.49	32.70	39.50	37.10
Service bakery	1.07	1.21	1.16	6.03	2.97	3.99	0	3.07	1.98	1.85	1.99	1.94
Service meat	25.56	20.08	22.05	14.63	16.80	16.08	8.44	31.73	23.50	19.70	21.83	21.08
Service seafood	3.22	4.96	4.33	2.86	4.60	4.02	0	2.98	1.93	2.46	4.46	3.75
Service floral	0	3.09	1.98	0	0	0	0	1.52	0.98	0	2.07	1.34
Pharmacy Average number of	0	0	0	0	0	0	0	0	0	0	0	0
departments	0.73	0.72	0.72	0.47	0.60	0.55	0.22	0.74	0.56	0.57	0.70	0.65
Number of stores	93	162	255	34	66	100	36	64	100	163	292	455

#### Small Grocery Stores

#### Specialty Stores

	Urban			Mixed			Rural			Total	
High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
15.88	18.79	17.98	18.01	25.57	24.49	0	33.36	30.18	15.71	22.98	21.43
9.53	12.23	11.47	18.73	9.51	10.83	0	39.19	35.46	11.30	14.11	13.51
47.28	26.19	32.10	36.73	42.49	41.67	0	44.24	40.03	42.81	34.43	36.22
31.32	29.77	30.21	35.41	20.03	22.24	49.32	10.95	14.61	33.04	23.98	25.92
0	0	0	0	1.65	1.41	0	5.62	5.08	0	1.24	0.98
0	0	0	0	1.65	1.41	0	0	0	0	0.63	0.50
1.04	0.87	0.92	1.09	1.01	1.02	0.49	1.33	1.25	1.03	0.97	0.99
	High- poverty 15.88 9.53 47.28 31.32 0 0 1.04 32	Urban High- poverty Other 15.88 18.79 9.53 12.23 47.28 26.19 31.32 29.77 0 0 0 0 1.04 0.87 32 81	Urban           High- poverty         Other         Total           15.88         18.79         17.98           9.53         12.23         11.47           47.28         26.19         32.10           31.32         29.77         30.21           0         0         0           1.04         0.87         0.92           32         81         113	Urban         High- poverty         Other         Total         High- poverty           15.88         18.79         17.98         18.01           9.53         12.23         11.47         18.73           47.28         26.19         32.10         36.73           31.32         29.77         30.21         35.41           0         0         0         0           1.04         0.87         0.92         1.09           32         81         113         11	Urban         Mixed           High- poverty         Other         Total         Nigh- poverty         Other           15.88         18.79         17.98         18.01         25.57           9.53         12.23         11.47         18.73         9.51           47.28         26.19         32.10         36.73         42.49           31.32         29.77         30.21         35.41         20.03           0         0         0         0         1.65           1.04         0.87         0.92         1.09         1.01           32         81         113         11         64	Urban         Hixed           High- poverty         Other         Total         Nigh- poverty         Other         Total           15.88         18.79         17.98         18.01         25.57         24.49           9.53         12.23         11.47         18.73         9.51         10.83           47.28         26.19         32.10         36.73         42.49         41.67           31.32         29.77         30.21         35.41         20.03         22.24           0         0         0         1.65         1.41           0         0         0         1.65         1.41           1.04         0.87         0.92         1.09         1.01         1.02           32         81         113         11         64         75	Urban         Hixed           High- poverty         Other         Total         Poverty         Other         Total         High- poverty         Uther         Total         High- poverty         Other         Total         Poverty           15.88         18.79         17.98         18.01         25.57         24.49         0           9.53         12.23         11.47         18.73         9.51         10.83         0           47.28         26.19         32.10         36.73         42.49         41.67         0           31.32         29.77         30.21         35.41         20.03         22.24         49.32           0         0         0         0         1.65         1.41         0           1.04         0.87         0.92         1.09         1.01         1.02         0.49           32         81         113         11         64         75         2	Urban         Mixed         Rural           High- poverty         Other         Total         poverty         Other         Total         Poverty         Other         Total         Poverty         Other         Total         State         S	Urban         Hixed         Rural           High- poverty         Other         Total         byoverty         Other         Total         rotal         High- poverty         Other         Total         High- poverty         Other         Total         rotal         High- poverty         Other         Total         rotal         Total           15.88         18.79         17.98         18.01         25.57         24.49         0         33.36         30.18           9.53         12.23         11.47         18.73         9.51         10.83         0         39.19         35.46           47.28         26.19         32.10         36.73         42.49         41.67         0         44.24         40.03           31.32         29.77         30.21         35.41         20.03         22.24         49.32         10.95         14.61           0         0         0         1.65         1.41         0         5.62         5.08           0         0         0         0         1.65         1.41         0         0         0           1.04         0.87         0.92         1.09         1.01         1.02         0.49         1.33 <td< td=""><td>Urban         Mixed         Rural           High- poverty         Other         Total         poverty         Other         Total         rotal         High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         Formation of the poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         Poverty         Other         Total         Poverty</td><td>Urban         Hixed         Rural         Total           High- poverty         Other         Total         Poverty         Other         Total         High- poverty         Other         Total</td></td<>	Urban         Mixed         Rural           High- poverty         Other         Total         poverty         Other         Total         rotal         High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         Formation of the poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         Poverty         Other         Total         Poverty	Urban         Hixed         Rural         Total           High- poverty         Other         Total         Poverty         Other         Total         High- poverty         Other         Total

# Percentage Distribution of Retailers by Types of Full Service Departments, Degree of Urbanization, Poverty Level and Store Type

#### Convenience Stores

Full Service Departments		Urban			Mixed			Rural			Total	
and a dall	High- poverty	Other	Total									
Service deli	11.31	23.18	21.41	15.20	11.62	12.21	33.97	28.69	30.03	17.38	19.02	18.74
Service bakery	0	2.06	1.75	2.10	1.81	1.86	0	4.75	3.55	0.85	2.28	2.04
Service meat	6.67	6.18	6.26	6.72	1.78	2.59	0	6.10	4.55	5.36	4.33	4.51
Service seafood	0	1.63	1.38	2.10	0	0.35	0	0	0	0.85	0.75	0.77
Service floral	0	0	0	0	0.45	0.37	0	0	0	0	0.19	0.16
Pharmacy Average number of	0	0	0	0	0	0	0	0	0	0	0	0
departments	0.18	0.33	0.31	0.26	0.16	0.17	0.34	0.40	0.38	0.24	0.27	0.26
Number of stores	44	243	287	46	227	273	23	66	89	113	536	649

#### Grocery/Gas Outlets

Full Service Departments	Urban			Mixed				Rural		Total		
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Service deli	0	12.57	10.45	25.61	18.15	19.12	15.79	24.02	22.43	14.12	18.75	17.99
Service bakery	0	1.83	1.52	0	1.29	1.13	0	6.57	5.30	0	3.34	2.79
Service meat	0	1.83	1.52	16.85	5.13	6.65	5.31	4.01	4.26	7.06	3.83	4.36
Service seafood	0	0	0	0	1.29	1.13	0	0	0	0	0.48	0.40
Service floral	0	0	0	0	0	0	0	2.68	2.16	0	0.97	0.81
Pharmacy Average number of	0	0	0	0	0	0	0	0	0	0	0	0
departments Number of stores	0.00	0.16	0.13 67	0.42	0.26	0.28	0.21	0.37	0.34 97	0.21 43	0.27 211	0.26

# Percentage Distribution of Retailers by Types of Full Service Departments, Degree of Urbanization, Poverty Level and Store Type

	han		00	
- 00	ner	31	01	<b>es</b>
		~ ~		

Full Service Departments	Urban				Mixed			Rural		Total			
	High- poverty	Other	Total										
Service deli	10.32	13.47	12.44	19.03	13.45	14.40	20.96	34.20	29.37	14.73	16.88	16.28	
Service bekery	2.52	2.51	2.51	6.51	9.24	8.77	0	0	0	2.74	4.77	4.20	
Service meat	0	12.64	8.49	6.51	10.74	10.02	0	19.04	12.08	1.36	12.94	9.69	
Service seafood	2.49	3.80	3.37	6.51	6.67	6.64	0	0	0	2.72	4.31	3.87	
Service floral	0	3.54	2.38	6.51	6.56	6.55	0	3.34	2.12	1.36	4.71	3.77	
Pharmacy Average number of	7.55	12.50	10.87	6.51	13.09	11.97	0	2.94	1.86	5.50	11.16	9.57	
departments	0.23	0.48	0.40	0.52	0.60	0.58	0.21	0.60	0.45	0.28	0.55	0.47	
Number of stores	40	80	120	16	76	92	19	32	51	75	188	263	

### All Store Types

Full Service Departments	Urban				Mixed			Rural		Total			
	High- poverty	Other	Total										
Service deli	26.46	35.64	33.57	23.25	31.11	29.80	22.36	35.45	32.46	24.67	33.96	32.04	
Service bakery	2.91	14.61	11.96	10.68	16.05	15.15	2.67	11.80	9.71	5.04	14.60	12.63	
Service meat	23.16	27.09	26.20	24.69	26.12	25.88	14.45	33.62	29.24	21.70	27.97	26.68	
Service seafood	7.47	18.78	16.23	7.00	10.93	10.28	0.88	5.01	4.07	5.91	13.32	11.79	
Service floral	0	9.22	7.13	2.82	8.13	7.25	0.88	3.40	2.82	0.98	7.72	6.33	
Pharmacy	1.25	6.34	5.19	1.46	4.37	3.89	0	1.37	1.06	1.04	4.68	3.93	
Average number of										0.00	1	0.07	
departments	0.61	1.12	1.00	0.70	0.97	0.92	0.41	0.91	0.79	0.59	1.02	0.93	
Number of stores	243	812	1055	142	688	830	111	363	474	496	1863	2329	

### Percentage of Retailers Providing Selected Non-Food Items by Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Non-Food Items	Urban			Mixed			Rural			Total		
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Gasoline	0	0	0	0	2.91	2.65	0	14.03	12.70	0	3.30	3.06
Motor oil	66.10	82.07	81.22	92.45	86.11	86.68	100.00	85.10	86.51	85.52	84.12	84.22
Diner automotive products	88.00	04.08	07 74	92.43	04.09	07.08	100.00	19.14	81.00	85.52	83.05	83.23
Stationery	88.70	04 82	95.70	85 20	90.52	03 36	83 56	90.34	90.09	96.00	90.10	93.90
Floral/gardening products	10.78	72.98	69.65	63.00	70.70	78.30	83.56	60.40	70.83	50.87	75.10	73 31
Beer/wine	66.81	78.92	78.27	71.54	77.57	77.03	0	65.43	59.22	55.56	76.31	76.77
Liquor	0	30.99	29.33	14.71	25.71	24.73	Ő	13.15	11.90	7.01	26.17	24.75
Clothing (socks, gloves, etc.)	88.79	62.92	64.31	70.87	72.16	72.05	100.00	51.74	56.32	82.51	64.81	66.12
Clothing	10.21	13.29	13.12	35.82	20.93	22.25	0	10.72	9.70	20.36	15.88	16.21
Lumber	0	1.28	1.21	7.35	1.40	1.93	0	1.91	1.73	3.51	1.43	1.58
Furniture	0	21.34	20.19	14.33	10.90	11.21	16.89	1.77	3.21	10.25	14.24	13.94
Pet foods	100.00	97.31	97.46	100.00	97.85	98.04	100.00	96.46	96.79	100.00	97.39	97.58
Houseware products	89.79	99.35	98.84	93.03	98.56	98.07	100.00	100.00	100.00	93.40	99.14	98.72
Household items	34.04	76.25	73.99	85.48	75.15	76.07	49.77	58.11	57.32	61.75	73.02	72.18
Tobacco products	78.58	97.36	96.36	100.00	95.59	95.98	100.00	98.23	98.40	93.12	96.80	96.53
Average Number	7.88	10.06	163	10.20	138	10.22	9.34	9.37	9.37	9.28	10.01	9.96

#### Large Grocery Stores

Non-Food Items		Urban		Mixed		Rural			Total			
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Gasoline	0	5.26	3.91	33.63	10.04	14.29	16.22	15.49	15.57	13.87	10.72	11.28
Motor oil	68.23	43.70	49.99	100.00	79.31	83.04	100.00	71.96	74.85	84.75	65.68	69.08
Other automotive products	61.32	43.54	48.09	100.00	76.58	80.81	83.78	61.84	64.10	78.06	60.84	63.91
Pharmaceutical items	67.95	62.21	63.68	100.00	92.08	93.51	100.00	97.98	98.19	84.61	85.36	85.23
Stationery	45.59	68.00	62.26	77.58	94.67	91.59	83.33	92.05	91.15	63.41	85.59	81.64
Floral/gardening products	7.58	21.85	18.20	44.10	28.16	31.04	83.78	60.07	62.52	34.79	38.72	38.02
Beer/wine	76.10	65.02	67.86	33.19	69.89	63.27	33.78	52.43	50.50	53.92	61.60	60.23
Liquor	22.36	8.20	11.83	0	15.39	12.62	0	10.12	9.08	10.74	11.16	11.09
Clothing (socks, gloves, etc.)	36.66	26.68	29.24	77.29	50.70	55.50	82.44	57.75	60.29	58.85	46.20	48.45
Clothing	0	10.94	8.14	0	10.17	8.33	0	5.80	5.20	0	8.70	7.15
Lunber	0	0	0	0	0	0	0	0	0	0	0	0
Furniture	0	2.71	2.02	0	0	0	0	0	0	0	0.82	0.67
Pet foods	91.75	91.87	91.84	100.00	100.00	100.00	100.00	100.00	100.00	96.04	97.54	97.28
Houseware products	100.00	94.58	95.97	100.00	100.00	100.00	100.00	97.98	98.19	100.00	97.57	98.01
Mousehold items	38.58	48.63	46.05	33.63	40.73	39.45	33.78	27.89	28.50	36.04	38.10	37.73
Tobacco products	92.42	94.58	94.03	100.00	100.00	100.00	100.00	100.00	100.00	96.36	98.36	98.01
Average	7.09	6.88	6.93	8.99	8.68	8.73	9.17	8.51	8.58	8.11	8.07	8.08
Number	13	37	50	9	39	48	6	50	56	28	126	154
		-										
				305								

140

#### Percentage of Retailers Providing Selected Non-Food Items by Degree of Urbanization, Poverty Level and Store Type

Smail Grocery Stores

Non-Food Items		Urban		Mixed			Rural			Total		
	High- poverty	Other	Total									
Gasoline	0	1.18	0.76	11.70	16.45	14.87	44.24	21.61	29.69	11.81	8.84	9.89
Motor oil	37.27	34.75	35.65	70.42	60.12	63.55	88.92	56.85	68.30	55.00	45.00	48.53
Other automotive products	33.99	27.19	29.63	59.08	58.65	58.80	80.71	63.46	69.62	49.04	41.76	44.33
Pharmaceutical items	44.03	36.36	39.12	79.34	78.62	78.86	88.85	90.59	89.97	60.74	57.09	58.38
Stationery	36.19	39.78	38.49	29.81	42.32	38.15	14.09	71.82	51.21	30.19	47.06	41.10
Floral/gardening products	4.29	4.89	4.68	11.89	16.78	15.15	25.02	31.46	29.16	10.25	13.09	12.09
Beer/wine	60.36	48.54	52.78	46.99	56.27	53.18	16.84	44.55	34.66	48.37	49.41	49.04
Liquor	8.70	15.52	13.07	0	10.64	7.09	2.97	8.22	6.34	5.72	12.91	10.37
Clothing (socks, gloves, etc.)	50.62	26.29	35.03	43.39	34.70	37.59	38.62	44.36	42.31	46.60	31.94	37.12
Clothing	9.76	5.61	7.10	2.82	15.18	11.06	2.68	14.33	10.17	6.84	9.55	8.60
Lumber	0	0.57	0.37	0	0	0	0	1.69	1.09	0	0.68	0.44
Furniture	3.03	1.12	1.80	0	3.09	2.06	0	3.18	2.04	1.77	1.99	1.91
Pet foods	86.80	76.36	80.11	61.97	83.32	76.20	83.23	95.29	90.99	81.01	81.87	81.57
Houseware products	94.57	85.09	88.49	82.36	94.00	90.12	97.29	98.41	98.01	92.67	89.85	90.85
Household items	17.36	19.01	18.42	11.58	10.64	10.95	10.89	17.20	14.95	14.81	16.78	16.08
Tobacco products	93.44	87.17	89.42	94.33	87.74	89.93	97.32	93.79	95.05	94.45	88.68	90.72
Average	5.80	5.09	5.35	6.06	6.69	6.48	6.92	7.57	7.34	6.09	5.97	6.01
Number	93	162	255	34	66	100	36	63	99	163	291	454

### Specialty Stores

Non-Food Items		Urban	Urban			Mixed				Total		
:	High- poverty	Other	Total									
Gasoline	0	0	0	0	0	0	0	0	0	0	0	0
Motor oil	3.33	0	0.93	9.24	3.27	4.13	0	0	0	4.59	1.26	1.97
Other automotive products	3.33	0	0.93	9.24	1.65	2.73	0	0	0	4.59	0.63	1.48
Dharmacautical items	6.74	1.31	2.83	9.24	6.30	6.72	0	5.33	4.83	7.05	3.67	4.39
Photionenu	0	1 21	0.87	0	6.76	6.06	0	5.33	4.83	0	3.01	2.37
Stationary	i i	1 28	0.02	0.00	1.65	2.70	l õ	5.62	5.08	2.12	1.89	1.94
Floral/gardening products	12 42	8 71	6 20	8 76	0.47	0.37	i õ	5.33	4.83	11.18	6.10	7.19
Beer/wine	12.02	3.11	0.20	0.10	3.00	2.65	i õ	0	0	0	1.19	0.93
Liquor	4 74	1 00	5 40	i i	3.07	2 77	0	5 33	4.83	4.87	4.30	4.42
clothing (socks, gloves, etc.)	0.14	9.00	7 59		3.01	2 58	i o	0	0	4.87	2.35	2.89
clothing	0.14	2.35	3.30	i i	3.01	2.30	i ő	ő	ő	0	0	0
Lumber	0	4 40	0.70		7 10	2 72			0	i i	1 78	1.40
Furniture	0	1.10	0.19		3.17	2.13		5 77	1 97	11 52	6 12	7 20
Pet foods	10.07	3.80	5.50	18.01	9.43	10.00	10 72	2.33	4.05	10.70	12.06	14 42
Houseware products	15.80	14.84	15.11	26.77	11.04	13.29	49.32	10.95	14.01	19.19	12.70	7.04
Nousehold items	3.37	6.24	5.44	0	1.65	1.41	0	5.33	4.85	2.43	4.3/	3.90
Tobacco products	19.17	8.68	11.62	26.77	17.26	18.62	0	5.33	4.83	20.16	11.62	13.45
Average	0.88	0.49	0.60	1.17	0.79	0.84	0.49	0.54	0.53	0.93	0.61	0.68
Number	32	81	113	11	64	75	2	18	20	45	163	208

306

### Percentage of Retailers Providing Selected Non-Food Items by Degree of Urbanization, Poverty Level and Store Type

#### Convenience Stores

Non-Food Items	Urban			Mixed			Rural			Total		
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Gasoline	26.94	34.30	33.20	78.55	73.89	74.65	69.34	76.90	74.98	56.11	55.86	55.91
Motor oil	68.21	76.75	75.47	91.58	94.58	94.09	91.39	98.44	96.65	82.21	86.76	85.99
Other automotive products	61.08	70.52	69.11	87.17	91.47	90.76	77.84	100.00	94.37	74.89	82.76	81.43
Pharmaceutical items	69.92	77.42	76.30	87.11	87.96	87.82	78.48	89.59	86.77	78.53	83.26	82.46
Stationery	56.53	74.98	72.22	63.09	81.86	78.77	21.47	79.23	64.56	52.18	78.35	73.92
Floral/gardening products	11.31	4.84	5.80	6.31	13.19	12.06	4.25	19.86	15.89	7.90	10,10	9.73
Beer/wine	83.79	66.38	68.98	69.49	75.83	74.79	30.54	75.69	64.22	67.45	71.43	70.75
liquor	15.63	12.25	12.76	9.03	15.05	14.06	0	7.62	5.69	9.87	12.87	12.36
Clothing (socks, gloves, etc.)	51.77	30.63	33.78	49.68	51.07	50.84	30.02	57.43	50.47	46.60	42.34	43.06
Clothing	9.02	5.49	6.02	6.49	15.78	14.26	8.49	18.12	15.67	7.90	11.28	10.71
Lumber	0	1.21	1.03	2.19	0.45	0.73	0	0	0	0.88	0.75	0.77
Furniture	2.09	0.83	1.02	0	0.86	0.72	0	4.47	3.34	0.83	1.28	1.20
Pet foods	90.84	90.23	90.32	80.74	92.46	90.54	74.00	95.51	90.04	83.43	91.79	90.37
Nouseware products	90.75	95.95	95.18	93.69	93.38	93.43	95.46	100,00	98.85	92.87	95.36	94.94
Household items	13.23	8.11	8.87	2.10	4.41	4.03	0	9.11	6.79	6.13	6.69	6.59
Tobacco products	95.56	93.92	94.17	95.53	96.03	95.95	100.00	98.42	98.82	96.43	95.34	95.52
Average	7.47	7.44	7.44	8.23	8.88	8.77	6.81	9.30	8.67	7.64	8.26	8,16
Number	44	244	288	46	227	273	23	66	89	113	537	650

#### Grocery/Gas Outlets

Non-Food Items		Urban		Mixed			Rural			Total		
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Gasoline	92.02	94.41	94.01	100.00	96.12	96.62	89.38	97.44	95.89	93.10	96.13	95.63
Motor oil	92.02	100.00	98.65	91.91	100.00	98.95	94.90	100.00	99.02	93.25	100.00	98.89
Other automotive products	83.26	96.26	94.06	91.91	98.81	97.91	94.90	97.32	96.86	90.80	97.58	96.47
Pharmaceutical items	91.24	90.85	90.92	100.00	97.36	97.71	100.00	96.09	96.84	97.54	95.14	95.53
Stationery	59.31	81.14	77.45	43.02	76.26	71.94	63.24	76.03	73.56	56.47	77.50	74.05
Floral/gardening products	0	9.37	7.79	8.76	23.69	21.74	26.70	33.55	32.23	14.18	23.36	21.86
Reer/wine	90.91	90.81	90.82	74.17	63.73	65.08	47.03	59:18	56.83	66.95	69.43	69.02
Liquor	7.98	1.85	2.88	0	5.21	4.53	0	4.03	3.25	2.24	3.87	3.60
Clothing (socks, gloves, etc.)	42.24	33.30	34.81	50.11	48.83	49.00	42.78	49.10	47.88	44.68	44.72	44.71
Clothing	0	1.85	1.54	16.41	6.14	7.47	5.10	20.26	17.33	6.84	10.07	9.54
Lumber	0	3.67	3.05	0	1.34	1.17	0	1.32	1.07	0	1.97	1.64
Furniture	0	3.79	3.15	16.30	0	2.12	0	1.22	0.98	4.57	1.47	1.98
Pet foods	91.24	90.85	90.92	83.81	98.81	96.85	100.00	96.22	96.95	93.00	95.72	95.27
Houseware products	91.24	98.06	96.91	100.00	98.76	98.92	100.00	97.37	97.88	97.54	98.07	97.98
Household items	0	7.26	6.03	8.31	5.03	5.45	0	11.40	9.20	2.33	7.93	7.01
Tobacco products	100.00	100.00	100.00	100.00	98.76	98.92	100.00	98.64	98.91	100.00	99.05	99.21
Average	8.41	9.03	8.93	8.85	9.19	9.14	8.64	9.39	9.25	8.63	9.22	9.12
Number	12	55	67	12	78	90	19	78	97	43	211	254

#### Percentage of Retailers Providing Selected Non-Food Items by Degree of Urbanization, Poverty Level and Store Type

Other Stores

Other 23.78 60.55 54.58 72.83	Total 22.79 61.41 53.93	High- poverty 8.58 25.88	Other 5.80	Total
23.78 60.55 54.58 72.83	22.79	8.58	5.80	6.57
55.09 48.85 54.34 6.28 51.86 40.13 6.28 6.32 72.83 75.67 30.88	69.32 46.70 44.50 40.39 4.03 31.26 4.03 4.03 4.03 4.03 4.04 69.32 71.12 25.48	23.52 32.44 18.88 22.37 15.19 2.64 23.63 1.19 1.20 3.69 30.06 41.43 15.17	28.93 27.92 38.44 33.19 30.90 25.80 8.09 25.48 17.98 1.01 11.57 37.97 45.03 22.20	28.08 26.69 36.77 29.19 28.52 22.83 6.56 24.96 16.08 1.06 9.36 35.76 44.02 20.23
	54.34 6.28 51.86 40.13 6.28 6.32 72.83 75.67 30.88 63.51 7.24 33	54.34 40.39 6.28 4.03 51.86 48.33 40.13 31.26 6.28 4.03 6.32 4.06 72.83 69.32 75.67 71.12 30.88 25.48 63.51 65.16 7.24 6.62 33 52	54.34         40.39         15.19           6.28         4.03         2.64           51.86         48.33         23.63           40.13         31.26         11.19           6.28         4.03         1.20           6.32         4.06         3.69           72.83         69.32         30.06           75.67         71.12         41.43           30.88         25.48         15.17           63.51         65.16         41.15           7.24         6.62         3.17           33         52         79	54.34         40.39         15.19         25.80           6.28         4.03         2.64         8.09           51.86         48.33         23.63         25.48           40.13         31.26         11.19         17.98           6.28         4.03         1.20         1.01           6.32         4.06         3.69         11.57           72.83         69.32         30.06         37.97           75.67         71.12         41.43         45.03           30.88         25.48         15.17         22.20           63.51         65.16         41.15         35.87           7.24         6.62         3.17         3.96           33         52         79         199

#### All Store Types

Non-Food Items		Urban		Mixed			Rural			Total		
2	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Gasoline Motor oil Dther automotive products Pharmaceutical items Stationery Floral/gardening products Beer/wine Liquor Clothing (socks, gloves, etc.) Clothing Lumber Furniture Pet foods Houseware products Household items Tobacco products Average Number	9.13 38.16 34.84 44.32 7.30 52.67 8.13 38.79 7.44 0 1.53 66.18 72.42 14.87 72.42 5.03 244	17.00 55.96 52.47 59.58 59.29 20.10 55.24 14.02 32.19 7.31 0.96 5.95 74.03 80.65 26.20 78.59 6.40 818	15.22 51.94 48.49 56.14 53.71 17.21 54.66 12.70 33.68 7.34 0.74 4.95 72.26 78.79 23.65 77.20 6.09 1062	40.10 73.77 69.72 75.11 46.36 17.82 51.58 5.00 45.80 10.30 2.07 4.78 68.46 80.71 17.10 84.77 6.93 145	38.23 72.88 71.00 77.26 67.87 30.25 60.65 13.69 45.49 14.20 0.58 4.92 79.22 81.39 22.64 80.79 7.61 693	38.55 73.03 70.78 76.90 64.25 28.15 59.12 12.22 45.54 13.55 0.83 4.90 77.41 81.27 21.70 81.46 7.50 838	48.51 85.63 77.52 83.81 34.25 28.87 24.30 0.97 43.11 6.13 0 0.91 81.05 90.95 10.74 91.90 7.09 111	44.78 77.40 75.49 87.57 75.48 39.87 56.48 7.65 49.44 16.15 1.43 2.46 89.79 92.19 22.86 89.99 8.29 363	45.63 79.28 75.95 86.71 66.04 37.35 49.11 6.12 47.99 13.85 1.11 2.11 87.79 91.90 20.09 90.43 8.01 474	26.40 58.48 53.93 61.56 37.82 14.93 46.25 5.70 41.71 7.97 0.59 2.32 70.03 78.76 14.62 80.12 6.01 500	29.97 66.16 63.55 71.30 65.47 27.52 57.44 12.70 40.28 11.48 0.91 4.92 78.89 83.09 24.27 81.54 7.20 1874	29.23 64.58 61.57 69.29 59.76 24.92 55.13 11.26 40.58 10.76 0.84 4.38 77.06 82.20 22.28 81.25 6.95 2374

.

143

308

# Average Level of Quantity of Food Groups by Degree of Urbanization, Poverty Level and Store Type

Supermarkets

Food Groups		Urban			Mixed			Rural		All Locations		
	High- poverty	Other	Total	High- poverty	Other	Totai	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat	0.55	0.78	0.77	0.82	0.76	0.77	1.00	0.70	0.73	0.77	0.76	0.76
Processed Meat	0.68	0.93	0.91	1.00	0.91	0.92	1.00	0.86	0.87	0.90	0.91	0.91
Fresh Poultry	0.44	0.75	0.74	0.79	0.76	0.76	0.93	0.57	0.60	0.71	0.73	0.73
Fresh Fish	0.17	0.34	0.33	0.28	0.33	0.32	0.32	0.15	0.17	0.25	0.31	0.30
Packaged Meat	0.96	0.95	0.95	1.00	0.96	0.96	1.00	0.91	0.92	0.99	0.95	0.95
Fresh Produce	0.88	0.91	0.91	0.94	0.87	0.88	0.89	0.78	0.79	0.91	0.87	0.88
Packaged Produce	0.88	0.90	0.90	0.94	0.91	0.91	0.95	0.84	0.85	0.92	0.90	0.90
Dairy Products	0.95	0.96	0.96	0.96	0.94	0.95	0.93	0.90	0.91	0.95	0.94	0.94
Eggs	1.00	0.98	0.98	0.88	0.94	0.93	1.00	0.90	0.91	0.94	0.95	0.95
Cereals, Grains	0.94	0.91	0.92	0.95	0.91	0.91	1.00	0.84	0.86	0.96	0.90	0.91
Rakery Products	0.86	0.91	0.91	1.00	0.94	0.94	1.00	0.87	0.88	0.96	0.91	0.92
Dinner Mixtures	0.87	0.94	0.03	0.98	0.95	0.05	0.98	0.86	0.87	0.96	0.03	0.03
Other Foode	0.85	0.04	0.03	1.00	0.05	0.05	1 00	0.80	0.00	0.05	0.03	0.04
	0.73	0.91	0.90	0.94	0.90	0.90	0.97	0.07	0.70	0.90	0.73	0.74
ALL FUUS	0.72	15/	147	0.04	170	152	0.0/	0.75	0.14	0.80	0.19	0.79
NUMBER OT STORES	9	154	165	14	158	152	0	>>	61	29	547	576

# Large Grocery Stores

Food Groups	Urban			Mixed			Rural			All Locations		
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat Processed Meat Fresh Poultry Fresh Fish Packaged Meat Fresh Produce Packaged Produce Dairy Products Eggs Cereals, Grains Bakery Products Dinner Mixtures Dther Foods ALL FOODS	0.08 0.43 0.03 0.01 0.78 0.53 0.60 0.56 0.79 0.76 0.62 0.70 0.73 0.43	0.23 0.55 0.15 0.69 0.57 0.67 0.67 0.83 0.80 0.60 0.48 0.73 0.48	0.19 0.52 0.12 0.72 0.56 0.57 0.64 0.82 0.79 0.61 0.53 0.73 0.47	0.64 0.74 0.32 0.00 0.77 0.64 0.80 0.92 0.84 0.87 0.31 0.73 0.88 0.67	0.43 0.59 0.36 0.02 0.77 0.65 0.70 0.79 0.89 0.83 0.80 0.76 0.85 0.60	0.47 0.61 0.35 0.02 0.77 0.65 0.72 0.82 0.88 0.83 0.83 0.80 0.76 0.85 0.61	0.80 0.98 0.90 0.00 1.00 0.89 0.95 0.98 1.00 0.94 0.95 1.00 0.81	0.45 0.79 0.24 0.09 0.91 0.72 0.76 0.85 0.91 0.80 0.82 0.85 0.83 0.64	0.49 0.81 0.08 0.92 0.74 0.78 0.86 0.92 0.81 0.83 0.86 0.85 0.66	0.41 0.64 0.30 0.82 0.64 0.73 0.76 0.85 0.83 0.75 0.76 0.83 0.75 0.76	0.38 0.65 0.25 0.80 0.66 0.68 0.78 0.88 0.81 0.75 0.71 0.81 0.75 0.71	0.38 0.65 0.26 0.04 0.81 0.65 0.69 0.77 0.87 0.81 0.75 0.72 0.81 0.75 0.72

### Average Level of Quantity of Food Groups by Degree of Urbanization, Poverty Level and Store Type

Small Grocery Stores

Food Groups		Urban			Mixed			Rural		All Locations		
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat Processed Meat Fresh Poultry Fresh Fish Packaged Meat Fresh Produce Packaged Produce Dairy Products Eggs Cereals, Grains Bakery Products Dinner Mixtures Dther Foods	0.04 0.23 0.00 0.02 0.26 0.26 0.41 0.38 0.55 0.62 0.49 0.39 0.55	0.03 0.28 0.00 0.01 0.55 0.27 0.45 0.57 0.45 0.57 0.60 0.43 0.33 0.33	0.03 0.26 0.00 0.53 0.26 0.40 0.43 0.56 0.41 0.45 0.35 0.55	0.01 0.25 0.00 0.03 0.41 0.21 0.40 0.43 0.47 0.50 0.40 0.26 0.46	0.02 0.29 0.01 0.00 0.47 0.20 0.40 0.41 0.52 0.49 0.44 0.37 0.56	0.02 0.28 0.01 0.45 0.20 0.40 0.42 0.50 0.49 0.43 0.34 0.53	0.09 0.35 0.01 0.00 0.49 0.17 0.42 0.50 0.67 0.47 0.51 0.42 0.55	0.06 0.33 0.03 0.57 0.50 0.59 0.51 0.70 0.53 0.47 0.56 0.60	0.07 0.34 0.02 0.54 0.26 0.54 0.51 0.69 0.51 0.49 0.51 0.51 0.51	0.04 0.26 0.02 0.47 0.23 0.41 0.42 0.56 0.56 0.48 0.37 0.53	0.03 0.29 0.01 0.54 0.26 0.26 0.41 0.45 0.59 0.56 0.44 0.39 0.56	0.04 0.28 0.01 0.02 0.51 0.25 0.41 0.44 0.58 0.56 0.45 0.38 0.55
Number of stores	93	162	255	34	66	100	36	64	100	163	292	455

#### Specialty Stores

Urban			Mixed			Rural			All Locations		
High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
0.00 0.10 0.07 0.07 0.08 0.13 0.11 0.32 0.22 0.14 0.10 0.15 0.09	0.03 0.06 0.04 0.07 0.13 0.10 0.11 0.12 0.27 0.20 0.28 0.05 0.14 0.10	0.02 0.07 0.03 0.07 0.11 0.10 0.11 0.12 0.28 0.21 0.24 0.24 0.06 0.14 0.10	0.00 0.16 0.00 0.26 0.09 0.10 0.11 0.15 0.30 0.09 0.19 0.01 0.01 0.09 0.10	0.08 0.09 0.02 0.05 0.06 0.13 0.11 0.18 0.10 0.23 0.05 0.08 0.09	0.07 0.10 0.02 0.05 0.06 0.06 0.13 0.11 0.20 0.10 0.22 0.05 0.08 0.09	0.00 0.00 0.49 0.00 0.17 0.00 0.17 0.00 0.00 0.34 0.00 0.34	0.06 0.16 0.03 0.02 0.08 0.10 0.11 0.16 0.12 0.05 0.21 0.08 0.08 0.09	0.05 0.15 0.03 0.07 0.09 0.11 0.14 0.14 0.11 0.04 0.22 0.07 0.08 0.09	0.00 0.11 0.00 0.13 0.07 0.08 0.12 0.12 0.12 0.12 0.12 0.18 0.18 0.18 0.18 0.13 0.09	0.05 0.08 0.03 0.04 0.09 0.08 0.12 0.12 0.12 0.22 0.15 0.25 0.25 0.11 0.09	0.04 0.09 0.03 0.06 0.09 0.08 0.12 0.12 0.12 0.24 0.15 0.23 0.06 0.11 0.09
	High- poverty 0.00 0.10 0.00 0.07 0.07 0.08 0.13 0.11 0.32 0.14 0.10 0.15 0.09 32	High- poverty Other 0.00 0.03 0.10 0.06 0.00 0.04 0.07 0.07 0.07 0.13 0.08 0.10 0.13 0.11 0.11 0.12 0.32 0.27 0.22 0.20 0.14 0.28 0.10 0.05 0.15 0.14 0.09 0.10 32 82	High- poverty         Other         Total           0.00         0.03         0.02           0.10         0.06         0.07           0.00         0.04         0.03           0.07         0.07         0.07           0.07         0.13         0.11           0.08         0.10         0.10           0.13         0.11         0.11           0.13         0.11         0.12           0.32         0.27         0.28           0.22         0.20         0.21           0.14         0.28         0.24           0.10         0.05         0.06           0.15         0.14         0.14           0.09         0.10         0.10           32         82         114	High- poverty         Other         Total         High- poverty           0.00         0.03         0.02         0.00           0.10         0.06         0.07         0.16           0.00         0.04         0.03         0.00           0.07         0.07         0.07         0.26           0.07         0.13         0.11         0.09           0.08         0.10         0.10         0.10           0.13         0.11         0.11         0.11           0.11         0.12         0.15         0.32           0.22         0.20         0.21         0.09           0.14         0.28         0.24         0.19           0.15         0.14         0.14         0.09           0.10         0.10         0.10         0.10           32         82         114         11	High- poverty         Other         Total         High- poverty         Other           0.00         0.03         0.02         0.00         0.08           0.10         0.06         0.07         0.16         0.09           0.00         0.04         0.03         0.00         0.02           0.07         0.07         0.07         0.26         0.02           0.07         0.13         0.11         0.09         0.05           0.08         0.10         0.10         0.10         0.06           0.13         0.11         0.11         0.11         0.13           0.11         0.12         0.15         0.11         0.13           0.22         0.20         0.21         0.09         0.10           0.14         0.28         0.24         0.19         0.23           0.10         0.05         0.06         0.01         0.05           0.15         0.14         0.14         0.09         0.08           0.09         0.10         0.10         0.10         0.09	High- poverty         Other         Total         High- poverty         Other         Total           0.00         0.03         0.02         0.00         0.08         0.07           0.10         0.06         0.07         0.16         0.09         0.10           0.00         0.04         0.03         0.00         0.02         0.02           0.07         0.07         0.16         0.09         0.10           0.07         0.07         0.26         0.02         0.02           0.07         0.13         0.11         0.09         0.05         0.06           0.13         0.11         0.11         0.11         0.13         0.11         0.11         0.13         0.13           0.11         0.12         0.15         0.11         0.11         0.11         0.13           0.22         0.20         0.21         0.09         0.10         0.10           0.22         0.20         0.21         0.09         0.10         0.10           0.14         0.28         0.24         0.19         0.23         0.22           0.10         0.05         0.06         0.01         0.05         0.05	High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         Poverty           0.00         0.03         0.02         0.00         0.08         0.07         0.00           0.10         0.06         0.07         0.16         0.09         0.10         0.00           0.00         0.04         0.03         0.00         0.02         0.02         0.00           0.07         0.07         0.07         0.26         0.02         0.05         0.49           0.07         0.13         0.11         0.09         0.05         0.06         0.00           0.13         0.11         0.10         0.10         0.06         0.06         0.00           0.13         0.11         0.11         0.11         0.13         0.17           0.11         0.12         0.15         0.11         0.11         0.00           0.22         0.20         0.21         0.09         0.10         0.00           0.22         0.20         0.21         0.09         0.10         0.00           0.14         0.28         0.24         0.19         0.23	High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         Poverty         Other         Total         Poverty         Other           0.00         0.03         0.02         0.00         0.08         0.07         0.00         0.06           0.10         0.06         0.07         0.16         0.09         0.10         0.00         0.16           0.00         0.04         0.03         0.00         0.02         0.02         0.00         0.03           0.07         0.07         0.07         0.26         0.02         0.05         0.49         0.02           0.07         0.13         0.11         0.09         0.05         0.06         0.00         0.08           0.08         0.10         0.10         0.10         0.06         0.06         0.00         0.18           0.13         0.11         0.11         0.11         0.13         0.17         0.11           0.11         0.12         0.15         0.11         0.11         0.00         0.16           0.32         0.27         0.28         0.30         0.18         0.20         0.00 </td <td>High- poverty         Other         Total         High- poverty         Other         Total           0.00         0.03         0.02         0.00         0.08         0.07         0.00         0.06         0.05           0.10         0.06         0.07         0.16         0.09         0.10         0.00         0.16         0.15           0.00         0.04         0.03         0.00         0.02         0.02         0.00         0.03         0.03           0.07         0.07         0.07         0.26         0.02         0.05         0.49         0.02         0.07           0.08         0.10         0.10         0.10         0.06         0.06         0.00         0.10         0.09           0.13         0.11         0.11         0.13         0.17         0.11         0.11         0.11         0.11         0.11         0.11         0.11           0.22         0.20         0.21         0.99         0.10         0.10         0.00         0.12         <t< td=""><td>High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         Poverty           0.00         0.03         0.02         0.00         0.08         0.07         0.00         0.06         0.05         0.00           0.10         0.06         0.07         0.16         0.09         0.10         0.00         0.16         0.15         0.11           0.00         0.04         0.03         0.00         0.02         0.02         0.00         0.03         0.03         0.00           0.07         0.07         0.26         0.02         0.05         0.49         0.02         0.07         0.13           0.07         0.13         0.11         0.10         0.06         0.06         0.00         0.10         0.07           0.32         0.27         0.28         0.30         0.18         0.20         0.00         0.12</td><td>High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         Poverty         Other           0.00         0.03         0.02         0.00         0.08         0.07         0.00         0.06         0.05         0.00         0.05           0.00         0.04         0.03         0.00         0.02         0.02         0.00         0.03         0.00         0.03           0.07         0.07         0.26         0.02         0.05         0.49         0.02         0.07         0.13         0.14         0.04         0.07         0.13         0.11         0.10         0.06         0.06         0.00         0.08         0.07         0.07         0.26           0.13         0.11         0.10         0.06</td></t<></td>	High- poverty         Other         Total           0.00         0.03         0.02         0.00         0.08         0.07         0.00         0.06         0.05           0.10         0.06         0.07         0.16         0.09         0.10         0.00         0.16         0.15           0.00         0.04         0.03         0.00         0.02         0.02         0.00         0.03         0.03           0.07         0.07         0.07         0.26         0.02         0.05         0.49         0.02         0.07           0.08         0.10         0.10         0.10         0.06         0.06         0.00         0.10         0.09           0.13         0.11         0.11         0.13         0.17         0.11         0.11         0.11         0.11         0.11         0.11         0.11           0.22         0.20         0.21         0.99         0.10         0.10         0.00         0.12 <t< td=""><td>High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         Poverty           0.00         0.03         0.02         0.00         0.08         0.07         0.00         0.06         0.05         0.00           0.10         0.06         0.07         0.16         0.09         0.10         0.00         0.16         0.15         0.11           0.00         0.04         0.03         0.00         0.02         0.02         0.00         0.03         0.03         0.00           0.07         0.07         0.26         0.02         0.05         0.49         0.02         0.07         0.13           0.07         0.13         0.11         0.10         0.06         0.06         0.00         0.10         0.07           0.32         0.27         0.28         0.30         0.18         0.20         0.00         0.12</td><td>High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         Poverty         Other           0.00         0.03         0.02         0.00         0.08         0.07         0.00         0.06         0.05         0.00         0.05           0.00         0.04         0.03         0.00         0.02         0.02         0.00         0.03         0.00         0.03           0.07         0.07         0.26         0.02         0.05         0.49         0.02         0.07         0.13         0.14         0.04         0.07         0.13         0.11         0.10         0.06         0.06         0.00         0.08         0.07         0.07         0.26           0.13         0.11         0.10         0.06</td></t<>	High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         Poverty           0.00         0.03         0.02         0.00         0.08         0.07         0.00         0.06         0.05         0.00           0.10         0.06         0.07         0.16         0.09         0.10         0.00         0.16         0.15         0.11           0.00         0.04         0.03         0.00         0.02         0.02         0.00         0.03         0.03         0.00           0.07         0.07         0.26         0.02         0.05         0.49         0.02         0.07         0.13           0.07         0.13         0.11         0.10         0.06         0.06         0.00         0.10         0.07           0.32         0.27         0.28         0.30         0.18         0.20         0.00         0.12	High- poverty         Other         Total         High- poverty         Other         Total         High- poverty         Other         Total         Poverty         Other           0.00         0.03         0.02         0.00         0.08         0.07         0.00         0.06         0.05         0.00         0.05           0.00         0.04         0.03         0.00         0.02         0.02         0.00         0.03         0.00         0.03           0.07         0.07         0.26         0.02         0.05         0.49         0.02         0.07         0.13         0.14         0.04         0.07         0.13         0.11         0.10         0.06         0.06         0.00         0.08         0.07         0.07         0.26           0.13         0.11         0.10         0.06

# Average Level of Quantity of Food Groups by Degree of Urbanization, Poverty Level and Store Type

Convenience Stores

Food Groups		Urben			Mixed			Rural			All Locations		
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	
Fresh Meat Processed Meat Fresh Poultry Fresh Fish Packaged Meat Fresh Produce Packaged Produce Dairy Products Eggs Cereals, Grains Bakery Products Dinner Mixtures Dther Foods ALL FOODS Number of stores	0.02 0.25 0.02 0.00 0.43 0.15 0.39 0.45 0.63 0.52 0.44 0.42 0.57 0.27 44	0.01 0.34 0.00 0.46 0.43 0.55 0.67 0.50 0.47 0.50 0.47 0.40 0.61 0.29 244	0.01 0.32 0.01 0.46 0.42 0.53 0.67 0.50 0.46 0.40 0.60 0.29 288	0.02 0.24 0.00 0.29 0.07 0.41 0.46 0.46 0.46 0.41 0.47 0.35 0.55 0.25	0.00 0.29 0.00 0.36 0.41 0.52 0.58 0.39 0.47 0.34 0.59 0.26 227	0.00 0.28 0.00 0.35 0.06 0.41 0.51 0.56 0.39 0.47 0.35 0.58 0.26 273	0.00 0.21 0.00 0.26 0.08 0.40 0.37 0.52 0.28 0.37 0.32 0.46 0.21 23	0.03 0.30 0.02 0.00 0.47 0.44 0.44 0.55 0.70 0.36 0.44 0.43 0.60 0.29	0.02 0.28 0.02 0.00 0.41 0.41 0.43 0.51 0.66 0.34 0.42 0.40 0.57 0.27 89	0.02 0.24 0.01 0.34 0.40 0.40 0.44 0.54 0.43 0.44 0.37 0.55 0.25 113	0.01 0.31 0.00 0.42 0.42 0.42 0.54 0.64 0.64 0.44 0.47 0.38 0.60 0.28	0.01 0.30 0.01 0.41 0.41 0.52 0.62 0.62 0.43 0.46 0.38 0.59 0.27 650	

#### Grocery/Gas Outlets

Food Groups	Urban			Mixed			Rural			All Locations		
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat Processed Meat Fresh Poultry Fresh Fish Packaged Meat Fresh Produce Packaged Produce Dairy Products Eggs Cereals, Grains Bakery Products Dinner Mixtures Dther Foods ALL FOODS Humber of stores	0.00 0.31 0.00 0.33 0.33 0.37 0.37 0.37 0.47 0.45 0.43 0.43 0.23 0.52 0.22	0.00 0.34 0.00 0.47 0.42 0.42 0.42 0.42 0.42 0.41 0.53 0.55 0.68 0.33	0.00 0.34 0.00 0.44 0.41 0.41 0.63 0.69 0.42 0.51 0.50 0.66 0.31	0.00 0.20 0.00 0.40 0.40 0.42 0.34 0.51 0.35 0.45 0.22 0.54 0.22	0.01 0.33 0.00 0.37 0.12 0.40 0.59 0.71 0.39 0.43 0.43 0.43 0.55 0.28	0.01 0.31 0.00 0.38 0.12 0.40 0.56 0.68 0.43 0.40 0.55 0.27	0.14 0.54 0.05 0.00 0.50 0.16 0.45 0.55 0.73 0.49 0.54 0.36 0.65 0.34	0.02 0.35 0.01 0.00 0.47 0.16 0.45 0.52 0.72 0.45 0.45 0.45 0.45 0.29	0.04 0.38 0.02 0.00 0.47 0.16 0.45 0.53 0.72 0.45 0.45 0.46 0.44 0.57 0.30 97	0.06 0.38 0.02 0.00 0.42 0.10 0.42 0.44 0.59 0.44 0.59 0.44 0.28 0.27 43	0.01 0.34 0.00 0.43 0.15 0.42 0.59 0.72 0.42 0.42 0.46 0.47 0.59 0.30 211	0.02 0.35 0.01 0.43 0.43 0.42 0.42 0.56 0.70 0.42 0.42 0.47 0.44 0.59 0.29

# Average Level of Quantity of Food Groups by Degree of Urbanization, Poverty Level and Store Type

Other Stores

Food Groups	Urban			Mixed			Rural			All Locations		
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High-	Other	Total
Fresh Meat Processed Meat Fresh Poultry Fresh Fish Packaged Meat Fresh Produce Packaged Produce Dairy Products Eggs Cereals, Grains Bakery Products Dinner Mixtures Dther Foods ALL FOODS Number of stores	0.03 0.06 0.00 0.02 0.17 0.33 0.12 0.12 0.12 0.28 0.16 0.10 0.09 0.18 0.13 42	0.01 0.10 0.00 0.31 0.22 0.25 0.36 0.25 0.36 0.25 0.32 0.16 0.25 0.16 85	0.02 0.09 0.00 0.01 0.26 0.25 0.19 0.21 0.21 0.24 0.22 0.25 0.14 0.23 0.15 127	0.05 0.14 0.05 0.04 0.23 0.34 0.20 0.16 0.22 0.24 0.22 0.24 0.15 0.27 0.17 19	0.07 0.11 0.06 0.02 0.22 0.27 0.23 0.23 0.23 0.23 0.23 0.16 0.24 0.17 82	0.06 0.11 0.06 0.03 0.22 0.28 0.22 0.21 0.23 0.23 0.23 0.16 0.25 0.17 101	0.00 0.28 0.00 0.43 0.40 0.29 0.32 0.46 0.35 0.28 0.26 0.41 0.24 19	0.06 0.28 0.04 0.00 0.44 0.31 0.37 0.50 0.60 0.43 0.37 0.36 0.43 0.37 0.36 0.45 0.28 33	0.04 0.28 0.03 0.00 0.44 0.34 0.34 0.34 0.43 0.43	0.03 0.13 0.01 0.02 0.24 0.35 0.18 0.18 0.18 0.12 0.22 0.18 0.14 0.25 0.16 80	0.04 0.13 0.03 0.01 0.25 0.25 0.28 0.29 0.27 0.29 0.29 0.29 0.29 0.29 0.29 0.29 0.29	0.04 0.13 0.03 0.22 0.28 0.23 0.25 0.37 0.26 0.26 0.28 0.26 0.28 0.27 0.26 0.28 0.27 0.26 0.28 0.28 0.23

# All Store Types

Food Groups	Urban			Mixed			Rural			All Locations		
	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total	High- poverty	Other	Total
Fresh Meat Processed Meat Fresh Poultry Fresh Fish Packaged Meat Fresh Produce Packaged Produce Dairy Products Eggs Cereals, Grains Bakery Products Dinner Mixtures Dther Foods NLL FOODS Mumber of stores	0.05 0.22 0.02 0.03 0.40 0.25 0.35 0.34 0.51 0.48 0.39 0.33 0.46 0.25	0.17 0.40 0.15 0.08 0.53 0.53 0.46 0.55 0.55 0.55 0.55 0.52 0.44 0.58 0.37	0.14 0.36 0.13 0.50 0.50 0.32 0.44 0.50 0.62 0.53 0.49 0.42 0.56 0.34	0.13 0.32 0.10 0.07 0.40 0.26 0.43 0.46 0.49 0.46 0.49 0.46 0.47 0.35 0.52 0.31	0.19 0.40 0.18 0.07 0.47 0.30 0.47 0.47 0.48 0.54 0.48 0.52 0.45 0.45 0.58 0.36	0.18 0.38 0.17 0.07 0.46 0.29 0.47 0.53 0.59 0.48 0.51 0.43 0.57 0.35	0.15 0.40 0.11 0.03 0.48 0.27 0.45 0.49 0.64 0.49 0.64 0.46 0.50 0.41 0.56 0.33	0.20 0.46 0.14 0.59 0.36 0.53 0.61 0.53 0.53 0.54 0.55 0.54 0.56 0.63 0.40	0.19 0.45 0.13 0.04 0.57 0.34 0.51 0.58 0.58 0.53 0.53 0.53 0.61 0.39	0.09 0.29 0.06 0.04 0.42 0.26 0.39 0.41 0.53 0.47 0.44 0.35 0.50 0.28	0.18 0.41 0.16 0.07 0.52 0.33 0.48 0.56 0.65 0.52 0.53 0.47 0.59 0.37	0.16 0.38 0.14 0.06 0.50 0.31 0.46 0.53 0.63 0.51 0.51 0.44 0.57 0.35

Appendix D

Questionnaire

# AUTHORIZED FOOD RETAILER CHARACTERISTICS STUDY

**OBSERVATION GUIDE** 

Contract No. 53-3198-3-007

OMB No. 0584-0445

Expiration Date: 1/31/95

MACRO INTERNATIONAL INC.

SPRING 1994

Affix Label with: Authorization No./PSU/Region, Field Office Name of Store Address Telephone Number Site Manager/Owner	Enter Corrections to Label Below
Interv Date: Start End	iewer: Time (military time): Time (military time): gth of Pace: inches

The purpose of this study is to provide information on characteristics of retailers authorized by the Food Stamp Program, assessing the degree to which Food Stamp and WIC participants have access to economical, quality food and services from retailers.

IANY ITEM THAT HAS A RESPONSE OF '99' MUST BE ASKED DURING THE MANAGER INTERVIEW. AT THAT TIME, REPLACE THE '99' WITH THE UPDATED INFORMATION.]

#### STORE CHARACTERISTICS 1.

1.1a Location of Store [ENTER MULTIPLE ANSWERS IF UNABLE TO LIMIT TO 1.] ....

- 1) Business district, non-residential
- 2) Inner city (downtown or central area of city)
- 3) Other non-suburban residential area within city
- 4) Suburban (outside central area)
- 5) Rural/small town (e.g. other stores nearby)
- 6) Rural/farm (e.g. no other stores nearby)
- 7) Rural/non-farm (e.g. desert area)
- 8) Other [SPECIFY]

1.1b Placement of Store [ENTER ALL THAT APPLY] .....

- 1) Free-standing
- 2) Within shopping center
- 3) In a mall
- 4) Along a business thoroughfare
- 5) Within a food market
- 6) Within a wholesale or retail market area
- 7) Next to a mall
- 8) Other [SPECIFY]

1.2 Classification of Store: [ENTER ONE] .....

- 7) Retail Route 1) Convenience Store
- 2) Co-op (non-profit)
- 3) Grocery

6) Produce Stand

- 8) Rolling Store
- 9) Specialty Food Store
- 4) Health/Natural Food Store 10) Supermarket
- 5) Multi-Stall Farmers' Market
  - 11) Warehouse Store 12) Other [SPECIFY]

1.3 Parking available upon arrival in store lot .....

- 1) Yes
- 2) No

3) Not applicable/no lot

1.4 Are store hours displayed in an obvious location? .....

1) Yes

.

2) No

99) Cannot Determine; Ask Manager

IF Q1.4 IS 99, SKIP TO Q1.5.

1.4a Store Hours [ENTER IN MILITARY TIME; IF OPEN 24 HOURS, ENTER OPEN AT 00, CLOSE AT 2400.]

1.4a Store Hours								
DAY OF WEEK	TIME STORE OPENS	TIME STORE CLOSES						
Monday								
Tuesday								
Wednesday								
Thursday								
Friday								
Saturday								
Sunday								

316

# 1.5 Measurement

a) Enter number of paces of frozen food selling area. If both sides of one aisle contain frozen foods, you would count both sides (e.g. if each aisle is 50 paces, it would be 100 paces total).

b) Enter how far back (in inches) the product extends.

- c) Enter height of display.
- 1.6 Cleanliness of the store
- 1.7 Obvious holes in the shelves where they have run out of products? [ENTER THE NUMBER OF PACES OF EMPTY SHELF SPACE; IF SHELVES ARE NOT MISSING ITEMS, ENTER 0. IF ITEMS ARE LIMITED, THAT WOULD NOT BE APPLICABLE. WE ARE ONLY LOOKING FOR TOTAL ABSENCE OF ITEMS. IF STORE DOES NOT CARRY ITEM, ENTER N/A.]

				Selling Area				
	1.	.5 Measureme	nt	1=p	erved, em	1.7 Missing Items		
	a) Length (No. of Paces)	b) Depth (Inches)	c) Height (Inches)	Trash on floor	Items Spilled	Dust on Cans/Boxes	Scuff marks, dirty floor	Holes (No. of Paces)
Frozen foods								
Fresh produce								
Fresh meat								
Coffee (not brewed)								
Canned fruit								
Dry cereal (packaged)						1		
Cookies (packaged)								
Detergent (laundry)								
Soft drinks (not fountain)								
Candy/Gum								

1.8 Number of registers available for checkout .....

1.8a Number of registers open at the time of observation .....

1.9 Does store have carts for shopping . .

1) Yes

2) No

1.9a Does store have carrying baskets for shopping .....

- 1) Yes 2) No

1) Yes

2) No

- 1.11 Are there any obvious poor/bad aromas noticed when you enter the store ...... or in sections of the store? [ENTER ONE]
  - 1) No odors noticed
  - 2) Yes, throughout the store
  - 3) Yes, in many sections
  - 4) Yes, only in very few sections

### 1.12 Lighting in the store [ENTER ONE] .....

- 1) Very bright (able read labels on carls without difficulty)
- 3) Poorly lit (difficult to read labels)
- 4) Very dark (cannot read labels)

#### 1.13 Items in typical aisles [ENTER 1=YES, 2=NO]

1) None or few floor displays (one or two per aisle)	
2) Many floor displays (several per aisle)	
3) Unopened boxes of stock (waiting to be/in process of being shelved)	
4) Carts with stock (waiting to be/in process of being shelved)	
5) Aisles are generally blocked (unable to pass without maneuvering)	

#### 1.14 Frozen foods [ENTER 1=YES, 2=NO, 3=N/A; DON'T SELL FROZEN FOOD]

1)	Defrosted items (soft ice cream or juice)	
2)	Crystal forming on package or on product (if visible)	
3)	Lights not working (dark showcases)	
4)	Other [SPECIFY]	

#### 2. SALES AND INVENTORY

2.1 Price signs for particular foods displayed in store window and/or on shelves .....

- 1) In store window/outside of store
- 2) On shelves or over displays
- 3) Both store windows and on shelves
- 4) Other [SPECIFY] ____
- 5) No food signs

2.2 Food signs in language other than English [ENTER ALL THAT APPLY] .....

- 1) No other language
- 2) Spanish
- 3) Asian
- 4) Other European
- 5) Hebrew/Yiddish
- 6) Middle Eastern
- 7) Other [SPECIFY] _____

IF Q2.2 IS 1, SKIP TO Q2.3.

1) Only in other language listed in Q2.2 above

2) In both English and other language listed in Q2.2 above

2.3 Food sales leaflets or circulars in store [ENTER ONE]

- 1) Available as you enter the store
- 2) Posted in store, on door or window
- 3) Both posted and available to pick up
- 4) No sale leaflets or circulars in store

1) Scales are available

- 2) No scales are available
- 3) Not necessary no items sold by weight
- 4) Other [SPECIFY] ____
- 2.5 Is there a community bulletin board available for posting events, services, etc. .....
  - 1) Yes
  - 2) No

# 3. CONSUMER SERVICES OFFERED

3.1 Which of the following services/items are offered or provided in this store? [ENTER 1=SERVICE IS OFFERED/PROVIDED, 2=NGT PROVIDED, AND 99=UNSURE. ANY ITEM FOR WHICH YOU HAVE ENTERED 99 MUST BE VERIFIED WITH THE MANAGER.]

# a) CUSTOMER ASSISTANCE SERVICES

1)	Front-end scanners .	• •																							•		•				,		
2)	Express checkout																																
3)	Bagging service																													• •			
4)	Car loading																									 •							
5)	Handicapped parking																																
6)	Handicapped shopping	3 0	art	s																													
7)	Infant seats and/or str	ap	s ir	1	ca	rts	;											,															
8)	Fax machines																		•		•••						•		•		•		
9)	Photocopy machines	• •		•	• •		• •	• •	•	•	• •	•	•	• •	• •	•	• •	•	•	• •	•	•	• •	•	•		•	 •	•	• •	•	•	

# **b) FULL-SERVICE DEPARTMENTS**

1) Service	deli/cheese			 	 	 -		 								 		 	
2) Service	bakery			 	 			 				 				 		 	
3) Service	meat			 	 			 								 		 	
4) Service	fish/seafood			 	 			 								 		 	
5) Service	floral			 	 			 				 				 		 	
6) Pharma	cy with pharm	nacis	t .	 	 			 				 				 		 	

# c) OTHER SERVICES

1) Food stamp acceptance sign on door/window	 		
2) WIC acceptance sign on door/window	 		
3) EBT acceptance sign on door/window	 		
4) Nutritional pamphlets/materials on bulletin board/display in store	 		
5) WIC shelf talkers (sign specifying WIC-eligible foods)	 		
6) Other nutritional information [SPECIFY]	 		

7)	Bulk foods	
8)	Discount (super size section)	

### d) NON-FOOD ITEMS

1) Gasoline	
2) Motor oil	······
4) Pharmaceutical items (self-serve)	
5) Stationery (magazines, books, greeting cards)	

# [1=SERVICE IS OFFERED/PROVIDED, 2=NOT PROVIDED, AND 99=UNSURE.]

### d) NON-FOOD ITEMS (continued)

6) Floral/gardening products	 	 	 					 
7) Beer/Wine (does not include non-alcoholic beverages)		 	 			 	 	 
8) Liquor	 	 	 					 _
9) Clothing (undergarments, socks, stockings, gloves)	 	 	 			 		
10) Clothing (more than undergarments)	 	 	 			 		
11) Lumber	 	 	 			 		 -
12) Furniture	 	 	 			 		 
13) Pet foods	 	 	 			 		
14) Houseware products (cleaning supplies, paper goods)		 	 			 		
15) Household items (pots and pans)	 	 				 		
16) Tobacco products	 	 				 		 

#### e) SPECIAL FOOD ITEMS

1) Salad bar			 	 	 											
2) Hot prepared food			 	 	 											
3) Yogurt machine			 	 	 											
4) Beverage fountain			 	 	 											
5) Hot beverages (coffee, t	ea, co	coa)		 	 											
6) Organic produce			 	 	 											
7) Ethnic foods			 	 	 											
8) Diet foods			 	 	 											
9) Gourmet foods			 	 	 											
10) Restaurant or sit-down	eating	area		 	 											

# 3.2 Nutritional information provided [ENTER 1=YES, 2=NO]

1) Nutritional videos being shown in the store (e.g. in the produce	_
section showing now to prepare an item and the nutritional value, etc.)	
2) Nutritional brochures available (e.g. in display by front door, by office, etc.)	
3) Cooking/nutrition demonstrations (e.g. by USDA extension agents	
or product representatives)	
4) Shelf level information	

# 3.3 Store employee available to provide assistance [ENTER 1=YES, 2=NO]

1) In office/front of store area	 
2) Visible on sales floor	 
3) Bell available to ring for service	 
4) Other method for getting help [SPECIFY]	 

INTERVIEWER: NOTE AT THE END OF THE MANAGER INTERVIEW GUIDE THOSE QUESTIONS THAT NEED TO BE VERIFIED WITH THE MANAGER. ENTER THE END TIME ON THE FRONT OF THIS FORM. NOW COMPLETE THE VARIETY, PRICE AND QUALITY TABLE.

# BLANK PAGE
#### AUTHORIZED FOOD RETAILER CHARACTERISTICS STUDY

# VARIETY, PRICE, QUALITY TABLE

#### Contract No. 53-3198-3-007

# OMB No. 0584-0445

Expiration Date: 1/31/95

MACRO INTERNATIONAL INC.

SPRING 1994

Interviewer:	
Date:	
Start Time (military time):	
End Time (military time):	

VARIETY						PRICE		QUALITY		
CANNED/BOTTLED	# of Styles (up to 3)	# of Brands (up to 3)	# of Package Types (up to 3)	Price Per Unit (lowest ccst)	Wt. or Other Unit (e.g. oz. or count)	If Other, Wt./Pair (if not packed by wt.)	Type of Pricing 1=unit 2=shelf 3=item 4=no price 5=can't get price	Packaged 1=in back room 2=in buriap bag 3=in plastic bag 4=loose	Selected (see no. in grid; first is if bagged, second is if loose)	Rejected (see no. in grid)
Fruits and Vegetables										
Applesauce (excludes added cinnamon)								dent	10	3
Beans, Green										
Cabbage or sauerkraut							È.,			
Carrots										
Corn (whole kernel)								dent	20	3
Juics, Apple (canned, bottled or aseptic package, 100% strength, Vitamin-C fortified)								dent	10	3
Juice, Orange										
Juice, Tomato (not V-8 or tomato juice cocktail)						•••			. • 	
Onions				5	1					
Oranges				<b>1</b>						
Peas										
Peachrs							W States			
Potatoes, White										
Squash										
Tomatoes (whole or crushed)										
Meat, Fish and Poultry				1 possimily monor small	Constant August Aug	-	1 January 100 100 100 100 100 100 100 100 100 10	X   end for an international statements		000000000000000000000000000000000000000
Fish										
Frankfurters, Meat							S. Maria			
Ham										ł
Poultry						•				

VARIETY						PRICE			QUALITY	
CANNED/BOTTLED	# of Styles (up to 3)	# of Brands (up to 3)	# of Package Types (up to 3)	Price Per Unit (lowest cost)	Wt. or Other Unit (e.g. oz. or count)	If Other, Wt/Pair (If not packed by wt.)	Type of Pricing 1=unit 2=shetf 3=item 4=no price 5=can't get price	Packaged 1=in back room 2=in burlap bag 3=in plastic bag 4=loose	Selected (see no. in grid; first is if bagged, second is if loose)	Rejected (see no. in grid)
Sausage, Pork, Uncooked										
Tuna, Canned in Water (includes white and light, solid and chunk)								dent	20	3
Mixtures										
Beans, Baked					L					
Beans, Pinto/White/Kidney/Split Peas										
Catsup								dent	10	3
Macaroni, Spaghetti and Tomato Sauce								dent	20	3
Peanuts, Dry Roasted									· · · · · · · · · · · · · · · · · · ·	
Peanut Butter, Prepared (includes smooth and chunky, low sodium, and not homogenized; excludes combinations - e.g. with jelly)								dent	10	3
Pickles, Sour and Dill									_	
Soups, with meat (beef, chicken)				ine intertitions					(	boh?
Soup, non-meat								and the state of the second		
Soup, Condensed Chicken Noodle/Rice								dent	20	3
Spaghetti Sauce, Tomato based, meatless								dent	10	3
Olis and Other Items										
Fat, Hydrogenated Vegetable					5					
Infant Formula, Milk-Based Liquid								dent	31	3
Infant Formula, Milk-Based Powder								dent	31	3

VARIETY						PRICE		QUALITY		
CANNED/BOTTLED	# of Styles (up to 3)	# of Brands (up to 3)	# of Package Types (up to 3)	Price Per Unit (lowest cost)	Wt. or Other Unit (e.g. oz. or count)	If Other, Wt./Pair (if not packed by wt.)	Type of Pricing 1=unit 2=shelf 3=item 4=no price 5=can't get price	Packaged 1=in back room 2=in burlap bag 3=in plastic bag 4=loose	Selected (see no. in grid; first is if bagged, second is if loose)	Rejected (see no. in grid)
Infant Formula, Soy-Based Liquid								dent	31	3
Infant Formula, Soy-Based Powder								dent	31	3
Infant Apple Juice in Bottles (pure)								dent	20	3
Infant Gerber Rice Cereal, pure rice								dent	10	3
Jelly									1	<u>6.</u>
Mayonnaise, Regular						Contraction of			, , , , , , , , , , , , , , , , , , ,	a desta a desta de
Milk, Evaporated/Skim/Lowfat										
Milk, Whole										
Oil, Sesame									•	
Oil, Soybean										
Salad Dressing										
Soft Drinks, Cola flavored, caramel colored (includes diet and reduced caffeine) Returnable: yes no Deposit required: yes no Amount of deposit: per								dent	10	3
Soft Drinks, Diet										
Soft Drinks, Non-Dlet		-							90.1 (S. 201	/
Syrup, Maple Cane or Corn							Anna an anna an an an an an an an an an a		1.2	
Vinegar				P						

VARIETY						PRICE		QUALITY		
DRIED/DRIED GROCERY	# of Styles (up to 3)	# of Brands (up to 3)	# of Package Types (up to 3)	Price Per Unit (lowest cost)	Wt. or Other Unit (e.g. oz. or count)	If Other, Wt/Pair (if not packed by wt.)	Type of Pricing 1=unit 2=shelf 3=item 4=no price 5=can't get price	Packaged 1=in back room 2=in burlap bag 3=in plastic bag 4=loose	Selected (see no. in grid; first is if bagged, second is if loose)	Rejected (see no. in grid)
Fruits and Vegetables										
Fruits										<b>*</b>
Peas, Beans										
Potato Chips, regular (includes regular and waffle cut and chips with flavoring; excludes chips from dehydrated potatoes or flakes)								date	10	3
Potatoes, White										
Meat, Fish and Poult/y										
Fish										
Dairy										
Eggs										
Milk, Nonfat/Lowfat					L	E				
Cereal, Bread, Rice, Pasta										
Cereals, Bran/Wheat							$(a_{12}^{a}) = (a_{12}^{a})$			
Cereals, Rice/Corn						· ·				<b>8</b> -
Cereals, Presweetened					and and server					
Cereals, Unsweetened Corn Flakes								date	10	3
Cheerios ready-to-eat cereal								date	10	3
Cookies										1
Commeal, Ground				i.	-					•
Crackers, Soda (excludes crackers with fillings)								dent	10	3
Flour, All Purpose										

.

VARIETY	VARIETY					RICE		QUALITY		
DRIED/DRIED GROCERY	# of Styles (up to 3)	# of Brands (up to 3)	# of Package Types (up to 3)	Price Per Unit (lowest cost)	Wt. or Other Unit (e.g. oz. or count)	If Other, Wt./Pair (If not packed by wt.)	Type of Pricing 1=unit 2=shelf 3=item 4=no price 5=can't get price	Packaged 1=in back room 2=in burlap bag 3=in plastic bag 4=loose	Selected (see no. in grid; first is if bagged, second is if loose)	Rejected (see no. in grid)
Flour, Whole Wheat (all purpose; excludes prepared flour mixes)								dent	10	3
M & M type sugar coated choc. candy in pkg.								dent	10	3
Oatmeal										
Macaroni Products (not spaghetti)										
Popcorn, Unpopped										
Salt, lodized				he general					Calendaria and	
Spaghetti, Dry								dent	10	3
Sugar, White granulated								dent	10	3
White Rice, enriched, uncooked (includes any length of grain; excludes wild rice)								dent	10	3
Mixtures	-				-	-	-			-
Macaroni and Cheese Dinner				a standa				dent	10	3
Pizza										
Soup				hing pres artition		lles mannen.	A. Actor and			
Olis and Other Items			-			1	1			
Coffee, Regular Ground (excludes high extraction, extended yield, instant, freeze-dried)								dent	10	3
Coffee, Powdered Instant										
Pepper, Spices/Herbs/Flakes			-							
Powdered Ades			-							
Salad Dressing Mixes										
Tea, Loose and Bagged							I martine		in and the second s Second second second Second second	

327

VARIETY				PRICE				QUALITY			
FRESH/PERISHABLE	# of Styles (up to 3)	# of Brands (up to 3)	# of Package Types (up to 3)	Price Per Unit (lowest cost)	Wt. or Other Unit (e.g. oz. or count)	If Other, Wt/Pair (If not packed by wt.)	Type of Pricing 1=unit 2=shelf 3=item 4=no price 5=can't get price	Packaged 1=in back room 2=in burlap bag 3=in plastic bag 4=loose	Selected (see no. in grid; first is if bagged, second is if loose)	Rejected (see no. In grid)	
Fruits and Vegetables											
Apples (excludes crab apples) Bagged Loose								cond	10/20	5/10	
Bananas (excludes plantains)								cond	10 bunches	5 bnch.	
Beans, Green		36									
Bok Choy					+						
Broccoli								и - с с с с с с с с.			
Cabbage										Ex	
Cantaloupe											
Carrots Bagged Loose								cond	10/20	5/10	
Celery						Steel Steel					
Corn						/					
Cucumbers											
Juice, Orange (dated, not fresh squeezed)											
Lettuce								cond	10	5	
Onions				× 19		•				•	
Oranges (excludes tangerines, tangelos, and mandarins) Bagged Loose							4	cond	10/20	5/10	
Peaches											
Plantains											
Potatoes, White (includes potatoes with red skins; excludes sweet potatoes and yams) Bagged Loose		1. N. L.						cond	10/20	5/10	

.

328

VARIETY						PRICE		QUALITY		
FRESH/PERISHABLE	# of Styles (up to 3)	# o? Brands (up to 3)	# of Package Types (up to 3)	Price Per Unit (lowest cost)	Wt. or Other Unit (e.g. oz. or count)	If Other, Wt/Pair (if not packed by wt.)	Type of Pricing 1=unit 2=shelf 3=item 4=no price 5=can't get price	Packaged 1=in back room 2=in burtap bag 3=in plastic bag 4=loose	Selected (see no. in grid; first is if bagged, second is if loose)	Rejected (see no. in grid)
Squash				ŀ			1 . Y · ·			
Tofu				a a according to the second			the approximation of the		le	
Tomatoes (includes cherry tomatoes) Bagged Loose								cond	10/20	5/10
Meat, Fish and Poultry										
Bacon (regular sliced)								date	10	3
Beef, Roast or Steak						h				
Beef, Ground								date	10	3
Cold Cuts, Processed sliced										1
Chicken Parts					1	h	Her		Santo cartal carta ana dara	
Chicken, Whole (includes kosher and nonkosher; excludes individual parts)								date	10	3
Fish Filets: If only whole fish available, select one: round dressed edible								cond	16	n/a
Frankfurters, Meat (includes kosher and nonkosher; excludes those made from poultry and knockwurst, bratwurst, and cocktail franks)				200 - 200 - 200 - 200				date	10	3
Ham (not canned)										
Pork Chops, fresh, bone-in (all types from pork loin)								date	10	3
Sausage, Pork, Uncooked				1 . ·						
Turkey, Fresh				1 the strenge	tin a survey allow	li, communication		1 Encompany and and a second	I	

VARIETY	VARIETY					PRICE		QUALITY		
FRESH/PERISHABLE	# of Styles (up to 3)	# of Brands (up to 3)	# of Package Types (up to 3)	Price Per Unit (lowest cost)	Wt. or Other Unit (e.g. oz. or count)	If Other, Wt./Pair (If not packed by wt.)	Type of Pricing 1=unit 2=shelf 3=item 4=no price 5=can't get price	Packaged 1=in back room 2=in buriap bag 3=in plastic bag 4=loose	Selected (see no. in grid; first is if bagged, second is if loose)	Rejected (see no. in grid)
Dairy										
Butter							•			
Cheese, Cheddar (includes mild-to-sharp and varying state origin; excludes processed)								date	10	3
Cheese, Cottage										
Eggs (chicken eggs, in shell, large) If large not available, enter size:								date	10	5
Margarine, Stick, 100% vegetable oils (excludes whipped, product containing animal fat, e.g. butter, and diet/imitation margarine)								date	10	3
Margarine, Soft Tub										
Milk, Skim/Lowfat (Includes flavored)										
Milk, Whole White								date	10	3
Yogurt										
Cereal, Bread, Rice, Pasta										
Bread, White Enriched								cond	20	3
Bread, Other (non-white)								•		
Donuts/Pastry								5. S.		
Mixtures										
Chicken/Beef Pot Ple										
Pizza										

VARIETY				PRICE		QUALITY				
FROZEN	# of Styles (up to 3)	# of Brands (up to 3)	# of Package Types (up to 3)	Price Per Unit (lowest cost)	Wt. or Other Unit (e.g. oz. or count)	If Other, Wt./Pair (if not packed by wt.)	Type of Pricing 1=unit 2=shelf 3=item 4=no price 5=can't get price	Packaged 1=in back room 2=in burlap bag 3=in plastic bag 4=loose	Selected (see no. in grid; first is if bagged, second is if loose)	Rejected (see no. in grid)
Fruits and Vegetables				16	1	1 (n. 145 - 146 - 146 - 146 - 146 - 146 - 146 - 146 - 146 - 146 - 146 - 146 - 146 - 146 - 146 - 146 - 146 - 146	a 5	2   p		
Beans, Green										
Broccoli										
Carrols										
Corn										
Fruit (Includes mixed melons)						*				
Juice, Orange (frozen, 100% concentrate)								dent	20	3
Onions								H.		
Peas						4		<u> </u>		
Potatoes, White (french fried, includes all cuts; excludes potatoes prepared in other forms)								dent	20	3
Squash				Lange and a		C. electrical				
Meat, Fish and Poultry				1.0		• <u>-</u>		11 Second Second second		9 čogranosta a starova se sa se
Beef, Ground				and the second	L. Suran				and and	
Chicken Whole Parts							and the second			
Fish, Filets: If only whole fish available, select one: round_ dressed_ adible										
Fish, Breaded										
Ham										
Sausage, Pork, Uncooked						a and		to have the second	+	
Turkey				last to mark the	la da anti-	1				

.

VARIE	VARIETY					PRICE		QUALITY		
FROZEN	# of Styles (up to 3)	# of Brands (up to 3)	# of Package Types (up to 3)	Price Per Unit (lowest cost)	Wt. or Other Unit (e.g. oz. or count)	If Other, Wt/Pair (if not packed by wt.)	Type of Pricing 1=unit 2=sheff 3=item 4=no price 5=can't get price	Packaged 1=in back room 2=in buriap bag 3=in plastic bag 4=loose	Selected (see no. in grid; first is if bagged, second is if loose)	Rejected (see no. in grid)
Dairy										
Yogurt					la suite de la					
Ceresi, Bread, Rice, Pasta										
Bread, All types										
Breakfast Foods (waffles, pancakes)					a France			0		
Sweet Baked Goods (donuts/pastry)				Les mis signe as	him have	harron marke or	Anne and the second	a la compressionale and		
Mixtures				-						
Chicken/Beef Dinner					And the second	k. Andrew			l Laurana ang ang ang ang ang ang ang ang ang	
Chicken/Beef Pot Pie								dent	10	3
Ice Cream (bulk, packaged)								dent	10	3
Macaroni and Cheese					е <b>к</b>					
Macaroni/Spaghetti and Meat									La sure	
Pizze (meet and cheese)								dent	10	3

# AUTHORIZED FOOD RETAILER CHARACTERISTICS STUDY

MANAGER INTERVIEW

Contract No. 53-3198-3-007

OMB No. 0584-0445

Expiration Date: 1/31/95

MACRO INTERNATIONAL INC.

SPRING 1994

Interviewer:	
Date:	
Start Time (military time):	
End Time (military time):	

The purpose of this study is to provide information on characteristics of retailers authorized by the Food Stamp Program, assessing the degree to which Food Stamp and WIC participants have access to economical, quality food and services from retailers. Your responses will be kept confidential; all results will be reported in the aggregate.

I would like to begin by asking you general questions about this store. This information will help us to classify your responses for analysis purposes.

NOTE TO INTERVIEWER: ANSWER CHOICES IN ALL CAPITALS ARE NOT READ TO THE RESPONDENT.

#### 1. STORE OWNERSHIP AND MANAGEMENT

1.1 ENTER OWNERSHIP PROVIDED FOR THIS STORE: <u>{OWNERSHIP AS INDICATED ON</u> <u>APPLICATION FORM</u>} USE TO PROBE IF NECESSARY, OR CLARIFY THE RESPONSE PROVIDED BY MANAGER.

- 1) INDEPENDENT, SOLE PROPRIETORSHIP
- 2) INDEPENDENT, PARTNERSHIP
- 3) INDEPENDENT, CORPORATION
- 4) CHAIN STORE (ONE OF GROUP OF 11 OR MORE STORES UNDER ONE CORPORATE OWNERSHIP)
- 5) COOPERATIVE STORE
- 6) OTHER [SPECIFY]
- 7) DON'T KNOW

1.1a Is this facility part of a franchise? .....

- 1) YES
- 2) NO
- 3) DON'T KNOW/REFUSED
- 1.1b Including this store, how many stores are under the same ownership? [ENTER NUMBER OF STORES]

2

1.2 What were the gross annual food/non-food sales for the last year at this store? ... \$_____

.

.

IF UNABLE OR UNWILLING TO PROVIDE EXACT AMOUNT:

	Were they:
	1) Less than \$50,000
	2) \$50,001 to \$100,000
	3) \$100,001 to \$250,000
	4) \$250,001 to \$500,000
	5) \$500.001 to \$1 million
	6) More than \$1 million, through \$2 million
	7) More than \$2 million, through \$4 million
	8) More than \$4 million, through \$8 million
	0) More than \$9 million, through \$12 million
	10) More than \$12 million, through \$20 million
	10) More than \$12 million
	12) REFUSED
	13) DON'T KNOW/UNDER DIFFERENT OWNERSHIP, MANAGEMENT
1.2a	What were the annual eligible food sales for the last year at this store? \$
	IF UNABLE OR UNWILLING TO PROVIDE EXACT AMOUNT:
	Were they:
	1) Less than \$50,000
	2) \$50,001 to \$100,000
	3) \$100,001 to \$250,000
	4) \$250,001 to \$500,000
	5) \$500,001 to \$1 million
	6) More than \$1 million through \$2 million
	7) More than \$2 million, through \$4 million
	R) More than \$4 million, through \$9 million
	0) More than \$2 million through \$12 million
	10) More than \$12 million, through \$20 million
	11) More than \$12 million, ullough \$20 million
	1) More than \$20 million
	13) DON'T KNOW/UNDER DIFFERENT OWNERSHIP, MANAGEMENT
1.3	Please look at this list. How would you classify this store?
	[HAND THE MANAGER THE LIST OF STORE TYPES AND HAVE HIM/HER TELL YOU WHICH APPLIES].
1.4	Do you also sell food items for wholesale at this location?
	1) YES
	2) NO

335

1.4a IF YES: What kinds? [ENTER 1=YES, 2=NO]

1) FRESH MEAT																																				
2) FRESH FISH																																				
3) BAKERY ITEMS														•												• •	. ,									
4) DELICATESSEN ITE	MS																											•		•						
5) DAIRY PRODUCTS				• •		• •																				• •			•	• •			•			 _
6) FRESH POULTRY .											• •				•																					
7) CANNED GOODS .													•		•				•		•	•		•		• •			•	•		•	•			 _
8) EGGS		• •			•	• •	•	• •		•	• •		•		•		• •	•	•		•	•	• •		•			•	•	• •		•	•	•		 _
9) FRESH PRODUCE					•		•				• •			•	• •		•	•	•		•	•				• •			•			•			 •	 _
10) OTHER [SPECIFY]	• •		•						• •	•	• •	• •		•	•	• •	•	•	•	• •	•	•	• •	•	•	• •		•	•	• •	• •	•	•	•	 •	 _

- 1) NO SPECIALTY 2) KOSHER FOODS 3) HEALTH FOODS 4) HISPANIC FOODS 5) ASIAN FOODS 6) INDIAN FOODS (ASIAN-INDIAN) 7) MIDDLE EASTERN FOODS 8) CARIBBEAN FOODS 9) OTHER [SPECIFY]
- 1.6 What is your title? ...... [ENTER ALL THAT APPLY]

1) OWNER 2) STORE MANAGER 3) ASSISTANT MANAGER 4) GROCERY MANAGER 5) OTHER [SPECIFY]

IF RESPONSE TO Q1.6 IS 1 AND 2, ENTER 1 IN Q1.7. DO NOT ASK.

- 1.7 Is the store manager the owner? .
  - 1) YES 2) NO 3) DON'T KNOW/REFUSED

### 2. SPECIAL STORE FEATURES

- - 1) **BILINGUAL CASHIERS**
  - 2) SIGNS IN LANGUAGE OTHER THAN ENGLISH
  - 3) BILINGUAL MANAGER OR OTHER EMPLOYEE AVAILABLE TO ASSIST
  - 4) OTHER [SPECIFY] _
  - 5) NONE
- - 1) YES
  - 2) NO
  - 3) DON'T KNOW/REFUSED
- 2.2a IF Q2.2 IS NO: Based on the current hours, what are the differences? [ENTER 1=YES, 2=NO]

1) OPEN MORE HOURS IN SUMMER	
2) OPEN FEWER HOURS IN SUMMER	
3) OPEN MORE HOURS IN WINTER	
4) OPEN FEWER HOURS IN WINTER	
5) DEPENDS ON WEATHER	
6) DEPENDS ON AVAILABLE STOCK	
7) OTHER [SPECIFY]	

- 2.3 Does the business operate year round? .....
  - 1) YES
  - 2) NO

[COMPARE WITH POSTED HOURS OBSERVED; CORRECT DISCREPANCIES]

- 2.4 How often does the State Health Inspector perform an inspection? ... [ENTER ONE]
  - 1) MONTHLY 2) MORE THAN TWICE A YEAR 3) TWICE A YEAR 4) ONCE A YEAR 5) ONCE EVERY TWO YEARS 6) LESS FREQUENTLY THAN ONCE EVERY TWO YEARS 7) NEVER
  - 8) UNABLE TO SPECIFY/DO NOT KNOW
- 2.5 How often does the Local Health Inspector perform an inspection? .... [ENTER ONE]

1) MONTHLY

- 2) MORE THAN TWICE A YEAR
- 3) TWICE A YEAR
- 4) ONCE A YEAR
- 5) ONCE EVERY TWO YEARS
- 6) LESS FREQUENTLY THAN ONCE EVERY TWO YEARS
- 7) NEVER
- 8) UNABLE TO SPECIFY/DO NOT KNOW

# 3. STORE SIZE AND SALES

- 3.2 How many customers do you serve during an average week? ..... customers [ENTER '999' IF DON'T KNOW]
- 3.2a What is your average total sales per customer? ...... \$_______ [ROUND TO THE NEAREST WHOLE DOLLAR; ENTER '999' IF UNABLE TO DETERMINE]

- 3.2c Does the average food sale per customer vary within a typical month?
  - 1) YES
  - 2) NO
  - 3) DON'T KNOW
- - 1) WHEN FOOD STAMPS ARE ISSUED
  - 2) WHEN MOST PEOPLE IN THE AREA GET PAID
  - (e.g. FRIDAYS, THE 1ST AND 15TH, ETC.)
  - 3) WHEN WIC VOUCHERS ARE ISSUED
  - 4) OTHER [SPECIFY] ____

5) DON'T KNOW

- 3.3 During this time of year, what is the average percent of produce sales to total sales?.....% [IF STORE DOES NOT SELL PRODUCE, ENTER 0. ENTER '999' IF DON'T KNOW].
- 3.4 During this time of year, what is the average percent of meat sales to total sales? ..... % [IF STORE DOES NOT SELL MEAT, ENTER 0. ENTER '999' IF DON'T KNOW].
- 3.5 How often do you restock the shelves? [ENTER ONE]
  - 1) CONTINUALLY ALL DAY, ANY ITEM, AS NEEDED
  - 2) SPECIFIC ITEMS THROUGHOUT THE DAY AS NEEDED (e.g. MILK, BREAD)
  - 3) ONCE A DAY
  - 4) LESS THAN DAILY, MORE THAN WEEKLY
  - 5) ONCE A WEEK
  - 6) LESS THAN ONCE A WEEK
  - 7) FIRST IN/FIRST OUT
  - 8) DON'T KNOW

3.6 How much inventory do you maintain of non-perishable grocery items? ..... [ENTER ONE] 1) 1-3 days 2) 4-6 days 3) 7-9 days 4) 10-12 days 5) 13-15 days 6) More than 15 days 3.7 Do you carry a house/generic brand? ..... 1) YES 2) NO 3.8 What is your procedure regarding pricing of items? [ENTER ONE] ..... 1) ALL ITEMS MARKED WITH PRICE, NO SHELF LABELS 2) ITEMS NOT INDIVIDUALLY MARKED, SHELF HAS PRICE 3) COMBINATION - ALL ITEMS MARKED AND PRICE ON SHELF 4) SOME ITEMS MARKED AND SHELF HAS PRICE 5) SOME ITEMS MARKED AND SHELF DOES NOT HAVE PRICE 6) OTHER [SPECIFY] 3.8a SKIP IF Q3.8 IS 1: Do you have unit pricing for all items? ..... [ENTER ONE] 1) FOR ALL ITEMS 2) FOR THE MAJORITY OF THE ITEMS 3) FOR SOME OF THE ITEMS 4) FOR FEW OF THE ITEMS 5) NOT AT ALL 3.8b How often are prices updated? ..... ....... [ENTER ALL THAT APPLY] 1) DAILY 2) WEEKLY 3) LESS FREQUENTLY THAN WEEKLY 4) WHEN SALES GO INTO EFFECT, AND THEN TAKEN OFF WHEN SALES ARE OVER 5) OTHER [SPECIFY] 3.9 . Can you estimate what percent of total sales you lose in theft each year, or the total . . dollar amount? [ENTER PERCENTAGE OR DOLLAR AMOUNT]

340

3.10 Do you employ security guards or undercover guards to help with this problem? .....

1) YES 2) NO 3) REFUSED

3.11 Do you have closed circuit television cameras to monitor the store? .....

1) YES 2) NO 3) REFUSED

For this study, we need to ask a few detailed questions about some specific items. We have randomly selected three products sold in the majority of the businesses selected in the study.

I'd like to begin with Cheerios.

We believe that the majority of the businesses selected for this survey also sell soft drinks, so we'd like to ask about sales of soft drinks from two distributors: the distributor who delivers Coca-Cola products, and the Pepsi-Cola distributor.

[IF COCA-COLA AND PEPSI-COLA PRODUCTS ARE SUPPLIED BY THE SAME DISTRIBUTOR, CHECK HERE _____, AND ENTER RESPONSES IN THE COCA-COLA SERIES.]

Let's begin with Coca-Cola products.

3.14	What are your approximate monthly purchases from this distributor? \$ [ROUND TO THE NEAREST DOLLAR; ENTER '0' IF DO NOT RECEIVE COCA-COLA PRODUCTS, AND SKIP TO Q3.15.]	_
3.14	a What percent mark-up (profit) do you try to achieve from this	_%
3.14	b What percent of your total soft drink sales are products from this	_%

3.14c Do you sell fountain drinks?

1) YES 2) NO

Now let's discuss Pepsi-Cola products.

[IF COCA-COLA AND PEPSI-COLA PRODUCTS ARE SUPPLIED BY THE SAME DISTRIBUTOR, YOU SHOULD HAVE CHECKED THE SPACE ABOVE; THEN SKIP TO SECTION 4.]

3.15	What are your approximate monthly purchases from this distributor?	\$
	[ROUND TO THE NEAREST DOLLAR; ENTER '0' IF DO NOT RECEIVE	
	PEPSI-COLA PRODUCTS, AND SKIP TO SECTION 4.]	

3.15c Do you sell PEPSI-COLA fountain drinks? .....

- 1) YES 2) NO

### 4. COMMUNITY ACCESS AND FOOD MARKETING - PERCEPTION OF NEIGHBORHOOD

4.1 What distance do you estimate the majority of your customers travel ... to patronize this establishment? [ENTER ONE; IF THEY RESPOND IN NUMBER OF BLOCKS, PROBE TO DETERMINE IF IT IS LESS THAN ONE-HALF MILE, ONE MILE, ETC.]

1) LESS THAN ONE-HALF MILE 2) BETWEEN GNE-HALF AND ONE MILE 3) ONE TO THREE MILES 4) THREE TO SIX MILES 5) MOPE THAN SIX MILES 6) CANNOT DETERMINE

1) TRAVEL SAME AMOUNT AS MAJORITY OF OTHER CUSTOMERS

2) TRAVEL MORE THAN OTHER CUSTOMERS

3) TRAVEL LESS THAN OTHER CUSTOMERS

4) CANNOT DETERMINE

1) AUTOMOBILE

2) BUS

3) TRAIN/SUBWAY

4) TAXI

- 5) LOCAL SHUTTLE
- 6) OTHER [SPECIFY]

7) WALK

- 8) CANNOT DETERMINE
- 4.2a Is the store located within walking distance, for example one-half mile, of the following: [ENTER 1=YES, 2=NO, 3=DON'T KNOW]

1)	A bus route	•
2)	Train/subway stop	•
3)	Taxi stand	
4)	Local shuttle (e.g. elderly, handicapped)	

- 1) COURTESY TELEPHONE
- 2) STORE CALLS
- 3) PAY TELEPHONE
- 4) NOT NECESSARY/TAXI STAND IS NEARBY
- 5) NOT APPLICABLE/NO TAXI'S IN AREA
- 6) NONE OF THE ABOVE

4.2c Is there a fee for parking, and does the store reimburse customers if purchases ....... are made in the store? [ENTER ONE]

1) NO FEE FOR PARKING

- 2) FEE FOR PARKING, REIMBURSE CUSTOMERS OR VALIDATE TICKET
- 3) FEE FOR PARKING, DO NOT REIMBURSE OR VALIDATE TICKET
- 4) FEE FOR PARKING, REIMBURSE OR VALIDATES TICKET ONLY UNDER CERTAIN CRITERIA [SPECIFY]

- 4.3 What do you believe is the reason your customers choose to shop .... in your store rather than your competitors? [ENTER ALL THAT APPLY]
  - 1) CONVENIENT LOCATION
  - 2) PRICE
  - 3) VARIETY OF ITEMS
  - 4) QUALITY OF ITEMS
  - 5) SERVICES OFFERED (BAGGING, HANDICAPPED PROVISIONS, ETC.)
  - 6) ATMOSPHERE (FRIENDLY PERSONNEL)
  - 7) THEY WANT TO SUPPORT THE LOCAL BUSINESS
  - 8) ACCEPT FOOD STAMPS/PROVIDE ADEQUATE SERVICES TO FOOD STAMP CUSTOMERS
  - 9) ACCEPT WC/PROVIDE ADEQUATE SERVICES TO WIC CUSTOMERS
  - 10) ACCEPT OTHER TYPES OF TENDER (CHECKS, CREDIT CARDS)
  - **11) EXTEND CREDIT**

12) REDEEM MANUFACTURERS' COUPONS/DOUBLE COUPONS

- 13) OTHER [SPECIFY]
- 14) THERE ARE NO COMPETITORS THIS STORE IS THEIR ONLY CHOICE

#### 5. MARKETING

1) NO ADVERTISING 2) NEWSPAPER ADS 3) TELEVISION/RADIO 4) WEEKLY CIRCULARS 5) CIRCULARS (UNSPECIFIED FREQUENCY) 6) BAG STUFFERS 7) OTHER [SPECIFY]

- 5.1a Do you promote certain food items during the time food stamps or WIC vouchers . are distributed?
  - 1) YES 2) NO 3) DON'T KNOW
- 5.2 Do you ever offer special promotions or advertisements specifically directed ... toward food stamp and/or WIC customers?
  - 1) YES 2) NO

5.2a IF YES: What do you do? [NO CODE]

5.3 Is your store part of a market research panel? .....

1) YES

2) NO

3) DON'T KNOW

1) MARKET RESEARCH FIRM 2) STATE AGENCIES 3) UNIVERSITY PANEL

4) FEDERAL AGENCIES

5) TRADE GROUP ASSOCIATIONS

- 6) TRADE PUBLICATIONS
- 7) OTHER [SPECIFY] _
- 8) DON'T KNOW

5.4 Do you use any of the following methods to determine customer satisfaction? [1=YES, 2=NO]

1) Mail survey	 
2) Telephone survey	 
3) Door-to-door survey	 
4) In-store survey	 
5) Focus groups	 
6) Anything else? [SPECIFY]	

. . . . . . . . . . . . . . . .

5.4a [IF ALL OF Q5.4 ARE NO, SKIP] Do you use any of the methods just mentioned to determine customer satisfaction of WIC or food stamp customers? [1=YES, 2=NO]

1) Mail survey	 
2) Telephone survey	 
3) Door-to-door survey	 
4) In-store survey	 
5) Focus groups	 
6) Anything else? [SPECIFY] _	

345

# FOOD STAMP AND WIC SALES, POLICIES AND REDEMPTION

Now I'd like to ask some questions pertaining to the Food Stamp and WIC Programs. Let's begin with food stamps.

### 6. FOOD STAMPS

6.1 What percent of your total annual food sales do you think are purchased using food stamps? [ENTER ONE. IF THEY NEED A PROMPT, BEGIN READING RANGES]

1) LESS THAN 1% 2) 2% TO 3% 3) 4% TO 5% 4) 6% TO 10% 5) 11% TO 25% 6) 26% TO 50% 7) MORE THAN 50%

- 6.1a By what percent have your total food stamp sales increased over the past year? ....
  - 1) 0; NO INCREASE 2) 5% OR LESS 3) 6% TO 10% 4) 11% TO 25% 5) 26% TO 50% 6) 51-100% 7) MORE THAN 100% 8) DECREASED 9) DON'T KNOW
- 6.2 What was the main reason you decided to become an authorized food stamp retailer? ... ______ [ENTER ONE]
  - 1) APPLIED WHEN OPENED STORE, NEVER CONSIDERED NOT ACCEPTING FOOD STAMPS
  - 2) CORPORATE POLICY DICTATES PARTICIPATION
  - 3) NEED TO ACCOMMODATE DEMANDS IN THE AREA/PROVIDE SERVICE TO COMMUNITY
  - 4) NEED TO OFFER SAME SERVICES AS COMPETITORS
  - 5) OTHER [SPECIFY]

6) DON'T KNOW

6.2a Is there a competitor within one mile who accepts food stamps? .....

- 1) YES
- 2) NO
- 3) DON'T KNOW

6.2b IF YES: What do you do to target these customers to shop at your store? .... [ENTER ALL THAT APPLY]

- 1) ADJUST PRICES TO BE COMPETITIVE
- 2) INCLUDE FOOD STAMP ACCEPTANCE NOTICE IN ADVERTISING
- 3) OTHER [SPECIFY]
- 4) DO NOT DO ANYTHING TO TARGET THESE CUSTOMERS
- 6.3 Do you recall what the process was for applying to be an authorized or reauthorized food sump retailer? [ENTER ALL THAT APPLY]
  - 1) COMPLETED APPLICATION PROVIDED BY FOOD STAMP PROGRAM
  - 2) ATTENDED TRAINING PROVIDED BY FOOD STAMP PROGRAM
  - 3) DONE UNDER PRIOR MANAGEMENT
  - 4) OTHER [SPECIFY]
  - 5) DON'T RECALL/NOT INVOLVED IN THE PROCESS
- 6.3a How was the application processed? [ENTER ONE] .....
  - 1) OVER THE TELEPHONE
  - 2) AT THE FIELD OFFICE
  - 3) AT A SATELLITE LOCATION/MEETING PLACE
  - 4) BY MAIL
  - 5) OTHER [SPECIFY]
  - 6) DON'T KNOW/NOT INVOLVED IN THE PROCESS
- 6.3b Who completed the application? ... [ENTER ALL THAT APPLY]
  - 1) STORE OWNER
  - 2) MANAGER
  - 3) PRIOR MANAGER
  - 4) ACCOUNTANT
  - 5) LAWYER
  - 6) CORPORATE OFFICE
  - 7) OTHER [SPECIFY] __
  - 8) DON'T KNOW

6.3c IF Q6.3b IS NOT 1, 2 or 3: Why did a third party help to fill out the ... application? [ENTER ALL THAT APPLY. IF NEED TO PROMPT, ASK IF IT WAS BECAUSE OF COMPLEXITY, LANGUAGE PROBLEM, ETC.]

1) APPLICATION WAS TOO CONFUSING

- 2) UNABLE TO UNDERSTAND (NOT IN NATIVE LANGUAGE)
- 3) WANTED TO BE CERTAIN IT WAS ACCURATE
- 4) CORPORATE POLICY
- 5) OTHER [SPECIFY] _

- 6.3d How would you rate the application in terms of clarity and amount of ..... instructions provided for completion. Would you say it was: [ENTER ONE]
  - 1) Very easy to understand and complete
  - 2) Somewhat easy to understand and complete
  - 3) Fairly difficult to understand and complete
  - 4) Extremely confusing; need to have additional instructions provided
  - 5) NOT APPLICABLE WAS NOT INVOLVED IN PROCESS
  - 6) DON'T RECALL
- 6.3e Which of the following types of documentation were you asked to provide when submitting the application? [ENTER 1=YES, 2=NO, 3=DON'T REMEMBER/NOT APPLICABLE]

1) Copies of licenses														 							_	
2) Proof of other store ownership														 							_	
3) OTHER [SPECIFY]	_	_	_	_	_	_	_	_	_	_	_	_	_	• •		• •					_	

6.4 As you know, the Food Stamp Program distinguishes between eligible ..... foods that can be purchased with food stamps and ineligible foods that cannot be purchased with food stamps. Could you identify the foods/products your customers believe are eligible but are not, and tend to cause confusion. [ENTER ALL THAT APPLY]

1) TOBACCO PRODUCTS
2) ALCOHOLIC BEVERAGES
3) HOT FOOD
4) HOUSEHOLD PRODUCTS
5) OTHER [SPECIFY]
6) DON'T KNOW/NO PROBLEMS

6.4a The Food Stamp Program also makes a distinction between staple ..... eligible foods and non-staple eligible foods. When you think of non-staple eligible foods under the food stamp definitions, what foods come to mind?

1) COFFEE, TEA, COCOA 2) CARBONATED AND UNCARBONATED SOFT DRINKS 3) CANDY AND GUM 4) CONDIMENTS 5) SPICES 6) OTHER [SPECIFY] 7) DON'T KNOW/NO PROBLEMS

16

- 6.5 Did someone from the Food Stamp Program explain staple foods to you, or was it provided through written materials? [ENTER ONE]
  - 1) EXPLAINED BY FOOD STAMP PROGRAM
  - 2) RECEIVED WRITTEN MATERIALS
  - 3) BOTH
  - 4) NEITHER NEVER EXPLAINED
  - 5) DON'T KNOW WHAT STAPLE FOODS ARE
  - 6) OTHER [SPECIFY] _
- 6.6 As you may recall, when you applied or were reauthorized to be an authorized ...______ food stamp retailer you had to provide an estimate of the percentage of staple foods that you sold. How did you estimate the percentage of staple items sold in this store? [ENTER ALL THAT APPLY]
  - 1) OBSERVATION
  - 2) INVENTORY
  - 3) PURCHASES
  - 4) SALES
  - 5) FIELD OFFICE HELPED
  - 6) JUST KNOW WHAT I SELL
  - 7) USED ESTIMATES PROVIDED BY FORMER OWNER
  - 8) DONE BY CORPORATE OFFICE OR OTHER OUTSIDE PARTY
  - 9) OTHER [SPECIFY]
  - 10) DON'T REMEMBER
- 6.7 What are the major problems, if any, you encounter with the Food Stamp Program? _ [ENTER ALL THAT APPLY]
  - 1) PROVIDING CASH CHANGE
  - 2) THE REDEMPTION PROCESS
  - 3) PARTICIPANTS WANT TO BUY INELIGIBLE ITEMS
  - 4) OTHER [SPECIFY]
  - 5) NO SIGNIFICANT PROBLEMS WITH THE PROGRAM
- 6.8 Who generally trains cashiers on the acceptance of food stamps ...... from customers? [ENTER ALL THAT APPLY]
  - 1) MANAGER
  - 2) HEAD CASHIER
  - 3) POINT OF SALE MANAGER (FRONT-END MANAGER)
  - 4) OWNER
  - 5) OTHER CASHIER
  - 6) COMPANY TRAINING PROGRAM
  - 7) OTHER [SPECIFY]

6.9 How are food stamp purchases entered in the register? [ENTER ONE] .....

1) ALL ITEMS ENTERED ON CERTAIN KEYS THAT ARE FOOD STAMP ELIGIBLE 2) ASK CUSTOMERS IF THEY ARE PAYING WITH FOOD STAMPS AND RING SEPARATELY 3) REGISTER CANNOT DISTINGUISH; DONE MANUALLY AFTER ORDER IS ENTERED 4) ELECTRONICALLY 5) OTHER [SPECIFY]

IF Q6.9 IS 4, SKIP TO SECTION 7.

1) YES 2) NO

3) DON'T KNOW

1) FOOD STAMPS ENDORSED BY CASHIER 2) FOOD STAMPS ENDORSED BY OFFICE

3) ONLY \$5 AND \$10 ENDORSED; LEAVE \$1 FOOD STAMPS FOR CHANGE

4) OTHER [SPECIFY]

1) REDEEMED FOR CASH

2) CREDITED TO CERTAIN OPERATING ACCOUNTS

3) OTHER [SPECIFY]

6.13 How often are food stamps generally deposited or redeemed, for example, as often . as cash deposits? [ENTER ONE]

1) DONE AS FREQUENTLY AS CASH DEPOSITS 2) DONE LESS FREQUENTLY THAN CASH DEPOSITS 3) DONE MORE FREQUENTLY THAN CASH DEPOSITS 4) DEPENDS ON VOLUME 5) OTHER [SPECIFY]

6.14	Is this: [ENTER ONE]	
	4) A faut times a day	
	1) A few times a day	
	2) A faw times a week	
	J) A lew unies a week	
	5) A few times a month	
	6) Monthly	
	7) OTHER ISPECIEVI	
6.15a	a What percent of your food stamp customers attempt to use	%
	tood stamps williout the proper identification?	
6.15b	b What percent of your food stamp customers attempt to use food stamps unattached from the book?	%
6.16 V	What do you do if you have a customer who presents \$5 and/or \$10 food	· · · · · · · <u> </u>
5	stamps without the coupon book bearing the same serial number?	
[	[IF 6.15b IS O, ASK, "What would you do if this ever happened?"]	
[	[ENTER ALL THAT APPLY]	
1	1) ACCEPT THEM ANYWAY; TELL THEM IN THE FUTURE TO LEAVE THE	EM INTACT
2	2) REFUSE TO ACCEPT THEM AND HAVE THE CUSTOMER PAY CASH ( THE ORDER	DR VOID
3	3) NOTIFY THE FOOD STAMP PROGRAM OFFICE	
4	4) OTHER [SPECIFY]	
(REMII AGGRI COMP	IND THEM THAT THEIR RESPONSES ARE CONFIDENTIAL AND WI REGATELY; INDIVIDUAL RESPONSES WILL NOT BE REPORTED TO FNS O PLIANCE INVESTIGATION.]	LL BE REPORTED OR BE PART OF ANY
6.17 A	Approximately how much inventory of food stamps are maintained?	
1		
2	2) UNLY ST COUPONS ARE MAINTAINED	
3	A) OTHER (SPECIEV)	
-		
	S) REPOSED	
6.17a I	IF Q6.17 IS 3: Anonoximately how much in coupons are maintained by deno	mination?
. (1	[ENTER DOLLAR AMOUNT FOR EACH DENOMINATION; '99' IF REFUSED	0]
1	1) \$1	s
2	2) \$5	
3	3) \$10	

6.18 Do you maintain the same coupon inventory throughout the month? .....

1) YES 2) NO

6.18a IF NO: What are the factors that lead to differences? [NO CODE]

7. WIC

Now I'd like to discuss the Women, Infants and Children (WIC) Program.

7.1 Are you currently a WIC-authorized vendor?

- 1) YES
- 2) NO
- IF NO, SKIP TO Q7.15
- 7.2 What percent of your total annual food sales do you think are purchased using WIC instruments? [IF NEED PROMPT, READ RANGES]
  - 1) LESS THAN 1% 2) 2% TO 3% 3) 4% TO 5% 4) 6% TO 10% 5) 11% TO 25% 6) 26% TO 50% 7) MORE THAN 50%
- 7.2a By what percent have your total WIC sales increased over the past year? ..... [ENTER ONE]

.......

1) 0; NO INCREASE 2) 5% OR LESS 3) 6% TO 10% 4) 11% TO 25% 5) 26% TO 50% 6) 51-100% 7) MORE THAN 100% 8) DECREASED 9) DON'T KNOW

- - 1) YES
  - 2) NO

3) DON'T KNOW

- 7.3a IF YES: What do you do to target these customers to shop at your store? ..... [ENTER ALL THAT APPLY]
  - 1) ADJUST PRICES TO BE COMPETITIVE
  - 2) INCLUDE WIC ACCEPTANCE NOTICE IN ADVERTISING

3) OTHER [SPECIFY]

4) DO NOT DO ANYTHING TO TARGET THESE CUSTOMERS

7.4 Are there ever periods in which WIC foods are not available in your store? .....

- 1) YES
- 2) NO
- 3) REFUSED
- - 1) WAREHOUSE RAN OUT OF ITEM 2) FORGOT TO ORDER 3) CAN'T KEEP TOO MUCH INVENTORY
  - 4) DISTRIBUTOR NOT RELIABLE
  - 5) OTHER [SPECIFY]
- - 1) YES 2) NO 3) DON'T KNOW
- - 1) WHEN CASHIER RINGS UP PURCHASE, BEFORE CUSTOMER SIGNS IT 2) WHEN CASHIER RINGS UP PURCHASE, AFTER CUSTOMER SIGNS IT 3) AFTEP VOUCHER IS TURNED INTO OFFICE/READY FOR DEPOSIT 4) OTHE: PECIFY]_____

- - 1) CASHIER 2) STORE OFFICE PERSONNEL/BOOKKEEPER 3) MANAGER/OWNER
  - 4) CUSTOMER
  - 5) OTHER [SPECIFY]

7.6 Are customers required to sign the vouchers to verify the amount of purchase? .....

- 1) YES
- 2) NO

3) DON'T KNOW

- - 1) YES
  - 2) NO

3) REFUSED

- 7.6b Are WIC customers required to provide WIC identification? . . . . . . . . . . . . [ENTER ONE]
  - 1) ALWAYS 2) MOST OF THE TIME 3) SOMETIMES 4) NEVER 5) REFUSED

1) ATTACH TO VOUCHER 2) PROVIDE TO CUSTOMER 3) BOTH — RECEIPTS ARE PRINTED IN DUPLICATE 4) NOT APPLICABLE (DON'T HAVE RECEIPTS) 5) OTHER [SPECIFY]

7.7 Does the office manager endorse WIC vouchers upon receipt? .....

1) YES 2) NO 3) DON'T KNOW

1) ATTENDED TRAINING SESSION SPONSORED BY STATE OR LOCAL AGENCY 2) RECEIVED BROCHURES AND OTHER MATERIALS 3) OTHER [SPECIFY]

7.8a How do cashiers receive training on accepting WIC vouchers? .....

1) RECEIVE TRAINING BY STORE PERSONNEL

2) RECEIVE TRAINING BY STATE OR LOCAL AGENCY PERSONNEL

3) ARE PROVIDED WITH BROCHURE SUPPLIED BY FNS

7.9 Where do you redeem WiC vouchers? [ENTER ONE] .....

1) STATE SPECIFIED BANKS 2) STATE AGENCY 3) OWN BANK 4) OTHER [SPECIFY]

1) WITH CHECK DEPOSIT 2) SEPARATE DEPOSIT 3) DON'T ACCEPT OTHER CHECKS 4) WITH CASH DEPOSIT 5) OTHER [SPECIFY]

1) DONE AS FREQUENTLY AS CHECK DEPOSITS

- 2) DONE LESS FREQUENTLY THAN CHECK DEPOSITS
- 3) DONE MORE FREQUENTLY THAN CHECK DEPOSITS
- 4) DEPENDS ON VOLUME
- 5) OTHER [SPECIFY]

7.10a How long does it take to receive reimbursement for your WIC vouchers? ....

1) LESS THAN 1 WEEK 2) 1 TO 2 WEEKS 3) 2 TO 4 WEEKS 4) 4 TO 6 WEEKS 5) MORE THAN 6 WEEKS 6) DON'T KNOW

7.11 Who or what agency would you contact if you had questions or needed guidance ... regarding the WIC program? [ENTER ALL THAT APPLY]

1) STATE OR LOCAL AGENCY

2) OTHER AUTHORIZED VENDOR AT NEARBY STORE

3) RETAILER'S CORPORATE OFFICE OR DISTRICT HEADQUARTERS

4) OTHER [SPECIFY]

7.12 Have you had a WIC educational/training visit recently? .....

1) YES

2) NO

7.12a IF YES: Was it within the past .....

- 1) 3 months
- 2) 4 to 12 months
- 3) 1 to 2 years
- 4) More than 2 years ago
- 5) Never
- 6) Refused

7.13 Do WIC customers purchase all foods on the food instrument? [ENTER ONE] .....

1) ALWAYS 2) MOST OF THE TIME 3) SOMETIMES 4) SELDOM 5) NEVER

7.13a IF Q7.13 IS 1, SKIP TO Q7.13b: Why don't they purchase all the foods? .... [ENTER ALL THAT APPLY]

1) THEY SAY THEY DON'T NEED IT ALL 2) THEY SAY THEY/THEIR CHILDREN DON'T LIKE CERTAIN THINGS 3) OUT OF STOCK ON CERTAIN ITEMS 4) DON'T KNOW 5) OTHER [SPECIFY] 7.13b IF Q7.13a IS 3: Do you allow rain checks if you are out of WIC-approved ...... foods?

1) YES

2) NO

3) SOMETIMES

4) REFUSED

1) YES

2) NO

3) DON'T KNOW

7.14a Would you be willing to purchase software and/or scanners that would allow you to ... distinguish WIC-eligible foods electronically? [PROBE TO SEE IF WILLING TO BUY BOTH, ONLY ONE, ETC.]

1) YES, SOFTWARE ONLY

2) YES, SCANNERS ONLY

3) YES, BOTH

4) HAVE SCANNERS, WOULD PURCHASE SOFTWARE

5) HAVE SOFTWARE, WOULD PURCHASE SCANNERS

6) WOULD NOT BE WILLING TO INVEST IN THE SOFTWARE/SCANNERS

7.14b Would you be willing to purchase the software/scanners if it would ensure ... that reimbursement from the State would occur within four working days?

1) YES

2) NO

3) DON'T KNOW

SKIP TO SECTION 8
- 7.15 What is the reason you are not currently a WIC Vendor? ... [ENTER ALL THAT APPLY]
  - 1) TOO MUCH HASSLE
  - 2) NOT ENOUGH VOLUME FOR IT TO BE WORTHWHILE
  - 3) WAS A VENDOR BUT LOST ELIGIBILITY
  - 4) COMPETITORS GET ALL THE WIC BUSINESS
  - 5) TOO DIFFICULT TO TRAIN CASHIERS
  - 6) JUST NEVER THOUGHT ABOUT IT
  - 7) CORPORATE HEADQUARTERS MAKES THAT DECISION
  - 8) DON'T SELL ENOUGH ELIGIBLE FOODS
  - 9) DON'T MEET STATE REQUIREMENTS
  - 10) OTHER [SPECIFY]
  - 11) NEVER HEARD OF WIC/DON'T KNOW ABOUT PROGRAM

## 8. FOOD STAMPS AND WIC

- 8.1 Are you aware of trafficking of food stamps and WIC instruments? .
  - 1) YES
  - 2) NO
- 8.1a IF YES: Have you ever had any problems with your customers regarding trafficking?
  - 1) YES
  - 2) NO
- 8.1b What is your policy on providing cash refunds to food stamp or WIC customers ..... who returned merchandise presumed purchased with food stamps or WIC vouchers?
  - 1) REFUND MONEY RARELY OCCURS 2) REFUND MONEY - OFTEN OCCURS 3) NEVER OCCURS 4) STORE POLICY IS TO REFUSE REFUNDS 5) [IF EBT STORE] CANCEL PURCHASE AND CREDIT ACCOUNT 6) DON'T KNOW
- 8.2 Has there ever been an adverse action against the store, such as a sanction or disgualification?
  - 1) YES
  - 2) NO
  - 3) REFUSED

- 8.2a IF YES: Were you satisfied with the way in which the (FNS/Field Office/ Local Agency) handled the situation?
  - 1) YES
  - 2) NO
  - 3) REFUSED
  - 4) NOT APPLICABLE/UNDER PRIOR MANAGEMENT
- 8.3 Do you believe your store has received a Food Stamp Program or WIC ...... monitoring visit within the last 12 months? This could be field office visits, monitoring visits, or undercover purchases. [ENTER ALL THAT APPLY]
  - 1) FOOD STAMP FIELD OFFICE VISIT
  - 2) WIC MONITORING VISIT
  - 3) UNDERCOVER COMPLIANCE PURCHASE (FSP)
  - 4) UNDERCOVER COMPLIANCE PURCHASE (WIC)
  - 5) DON'T KNOW
- - 1) TO CHECK ON PRICES
  - 2) TO CHECK ON AVAILABLE FOODS
  - 3) TO MONITOR HANDLING OF FOOD STAMPS
  - 4) TO MONITOR HANDLING OF WIC VOUCHERS
  - 5) OTHER [SPECIFY] _
- 8.4 In general, how important are undercover visits for ensuring that retailers . . meet Food Stamp and WIC processing requirements?
  - 1) VERY IMPORTANT
  - 2) SOMEWHAT IMPORTANT
  - 3) SLIGHTLY IMPORTANT
  - 4) NOT AT ALL IMPORTANT
  - 5) NO OPINION/DON'T KNOW
- 8.4a How important are other visits for ensuring that retailers meet Food Stamp and WIC processing requirements?
  - 1) VERY IMPORTANT
  - 2) SOMEWHAT IMPORTANT
  - 3) SLIGHTLY IMPORTANT
  - 4) NOT AT ALL IMPORTANT
  - 5) NO OPINION/DON'T KNOW

351

## 9. PAYMENT FORMS

Now I'd like to discuss the forms of payment accepted at this store.

9.1 I'm going to read a list of payment methods. Please tell me if you accept each type of payment. For any type you do not accept, if you accepted it in the past, please let me know that you do not currently accept it bit did at one time; or if you plan on accepting it within the next six months, please let me know that. [1=CURRENTLY ACCEPTS, 2=DOES NOT CURRENTLY ACCEPT, 3=DID ACCEPT AT ONE TIME, 4=PLANS TO ACCEPT WITHIN NEXT SIX MONTHS]

1) Cash				 
2) Personal checks				 
3) Money orders				 
4) Travelers checks				 
5) Credit cards				 
6) Debit cards				 
7) WIC vouchers				 
8) Emergency relief vouchers	s (usually	provided	by Red Cross)	 
9) Electronic benefits transfe	f			 
10) Gift certificates				 
11) Extend credit				 
12) Anything else? [SPECIFY	1			 

- 9.1a IF Q9.1, OPTION 5 OR 6 IS NO: Why are you currently not accepting ...... credit cards or debit cards for purchases? [ENTER ALL THAT APPLY]
  - 1) DON'T HAVE THE EQUIPMENT NEEDED 2) TOO MUCH HASSLE 3) NO DEMAND 4) TOO EXPENSIVE 5) TAKES TOO LONG TO GET FUNDS 6) HAVEN'T REALLY THOUGHT ABOUT IT 7) OTHER [SPECIFY]
- 9.1b What would (or has) motivate(d) you to accept these payment forms? ..... [ENTER ALL THAT APPLY]

1) NO COST FOR INSTALLING EQUIPMENT 2) CUSTOMER DEMAND 3) ACCEPTED BY COMPETITORS

- 4) NOTHING WOULD MOTIVATE ME
- 5) OTHER [SPECIFY]

28

360

9.1c FOR EACH ITEM IN Q9.1 THAT HAS A 3 (WAS ACCEPTED AT ONE TIME), ASK: Why do you no longer accept [item]? What would persuade you to accept it again?

Item:	
Reason no longer accepted:	
Would accept again if:	
Item:	
Reason no longer accepted:	
Would accept again if:	
Item:	
Reason no longer accepted:	
Would accept again if:	1
Do you cash personal checks for your customers fr [ENTER ALL THAT APPLY]	rom a third party?
1) YES, FOR ANYONE	
2) YES, ONLY IF THEY'RE A REGULAR CUSTOM	<b>NER</b>

3) YES, ONLY UNDER A CERTAIN DOLLAR AMOUNT [SPECIFY] \$_

- 4) YES, ONLY IF THEY WILL BE USING IT FOR THEIR PURCHASES
- 5) NO, NEVER
- 6) OTHER [SPECIFY] __
- 9.3 SKIP IF Q9.1, OPTION 2 IS NO: Do you allow customers to write personal checks for more than the amount of their purchase to receive cash back? [ENTER ONE]

1) YES [SPECIFY AMOUNT] \$

2) NO

9.2

- 3) DO NOT ACCEPT PERSONAL CHECKS
- 4) OTHER [SPECIFY]

361

9.4 Do you have/accept the following services in your store? For each item you do not currently have, please let me know if you have any plans to provide the service within the next six months. [ENTER 1=YES, 2=NO, 3=PLAN ON IN NEXT SIX MONTHS]

1)	Automatic Teller Machine (ATM)																						 -	
2)	Cents off coupon redemption																						 	_
3)	Trading stamps or register tape program												•						•		•	• •	 	_
4)	Bottle return/deposit															• •		•				• •	 	_
5)	Shopping club or other savings program			• •					• •				• •			• •			•			•	 	_
6)	Home delivery											•	• •				• •	•		 •		• •	 	_
7)	United Parcel Service (UPS) pickup						•	• •	• •			•	• •	• •		• •		•	•	 •	•	• •	 	_
8)	Western Union or other wire transfer of fu	und	İs								• •		• •	• •	•	• •		•	•			• •	 	_
9)	Rainchecks						•	• •	• •	• •	• •	•	• •	• •	•	• •	• •		•	 •	•	• •	 	_
10)	Recycle (e.g. bags, glass, cardboard)		• •	• •					• •				• •		•	• •		•	•	 •	•	• •	 	_
11)	Discounts for providing own bags						•		• •	• •	• •	•	• •	• •			• •	•	•			• •	 	_
12)	Electronic check validation		• •		•		• •		• •	• •	• •	•	• •	•	•	• •	• •	•	•	 •	•		 	_
13)	Lottery tickets		• •	• •			• •		• •	• •	• •	•	• •	• •	•	• •	• •	•	•	 •	•	• •	 	_
14)	Video rentals		• •	• •				• •	• •	• •	• •	•	• •	• •		• •	• •	•	•	 •	•	• •	 	_
15)	Photo processing					• •	• •	• •	• •		• •	•	• •			• •	• •	•	•	 •	•	• •	 	_
16)	Food stamp issuance services			• •			• •	• •	• •	•	• •		• •		•	• •	• •	•	•	 •		• •	 	_

.....

9.5 Do you ever have any cooking or nutritional demonstrations in the store? .....

1) YES 2) NO

9.5a IF YES: How often? .....

1) DAILY 2) FEW TIMES A WEEK 3) WEEKLY 4) FEW TIMES A MONTH 5) MONTHLY 6) ONCE EVERY FEW MONTHS 7) FEW TIMES A YEAR 8) OTHER [SPEC!FY]

## 10. RETAILERS ATTITUDES TOWARD ELECTRONIC BENEFITS TRANSFER (EBT)

- 10.1 Have you heard about EBT (Electronic Benefits Transfer) with regard to use in the ..... Food Stamp Program?
  - 1) YES 2) NO

3) NOT SURE

10.1a IF YES: Which sources provided the information? ...

1) NEWSPAPERS 2) TRADE PAPERS 3) CORPORATE HEADQUARTERS/OWNERS 4) OTHER RETAILERS/VENDORS 5) ASSOCIATION MEETINGS 6) DISTRIBUTORS 7) STATE 8) BANK 9) OTHER [SPECIFY]

I would like to briefly describe EBT to you and then ask you a few questions about your reaction to it.

EBT is a system that is currently operational in several states for paying food retailers for food stamp purchases. Each food stamp recipient carries a card similar to that used for automatic teller machine (ATM) transactions. They also have a personal identification number (PIN) which they use with the card. When they shop at a food store, they give the cashier their card. The cashier runs the card through an electronic card reader, and the shopper enters their PIN into the machine. Once the transaction is approved, your account is automatically credited.

10.2	What would (do, if EBT) you see as the advantages of EBT for you	· · · · · · · · · · · · · · · · · · ·
	as a store manager/owner? [ENTER ALL THAT APPLY]	

- 1) NOT HAVING TO DEAL WITH COUPONS
- 2) BETTER ACCOUNTING OF FOOD STAMP TRANSACTIONS
- 3) QUICKER TRANSFER OF FUNDS
- 4) BETTER CUSTOMER RELATIONS
- 5) BETTER MORALE AMONG EMPLOYEES
- 6) MAKE CHECKOUT EASIER, FASTER
- 7) PRESERVE COMPETITIVE POSITION
- 8) WILL INCREASE BUSINESS/ATTRACTS CUSTOMERS
- 9) NO ADVANTAGES
- 10) OTHER [SPECIFY] __
- 10.3 What would (do, if EBT) you see as the disadvantages of EBT for you ..... as a store manager/owner? [ENTER ALL THAT APPLY]
  - 1) PURCHASE OF NEW EQUIPMENT
  - 2) MAKING SPACE FOR EQUIPMENT
  - 3) EMPLOYEE TRAINING
  - 4) CHANGING ACCOUNTING PRACTICES
  - 5) CHANGING IN-STORE CHECKOUT PROCEDURES
  - 6) PROBLEMS WITH TECHNOLOGY/MACHINE IS SLOW OR BREAKS DOWN
  - 7) NO DISADVANTAGES
  - 8) OTHER [SPECIFY]

## 11. FOOD AND NUTRITION SERVICE RETAILER EDUCATION EFFORTS

11.1 How often do you contact the following agencies per year?

.

	1) Food and Nutrition Service (FNS)	r year year year
11.2	How often are you contacted by these agencies each year?	
	1) Food and Nutrition Service (FNS)	year year year
11.3	IF Q11.1, OPTION 3 IS NOT 0: When did you last contact the Food Stamp	
	IF Q11.1, OPTION 2 IS NOT 0: When did you last contact the WIC State/Local Agency? [ENTER MONTH AND YEAR]	
11.3a	a What types of guidance did you seek? [ENTER 1=YES, 2=NO] FSP	wic
	1) CLARIFICATION ON FOOD STAMP OR WIC-ELIGIBLE FOODS 2) REPORTING PROBLEM CUSTOMERS 3) PROBLEMS WITH BANK 4) PROBLEMS WITH COMMUNITY GROUPS 5) OTHER	=
11.3b	guidance? [ENTER ALL THAT APPLY]	(FSP) (WIC)
	1) WHEN INITIALLY APPLYING 2) WHEN BECOMING REAUTHORIZED 3) FOR REINSTATEMENT FOLLOWING A DISQUALIFICATION 4) WHEN BECOMING AN EBT RETAILER 5) REGARDING ELIGIBLE FOODS 6) OTHER [SPECIFY] 1) DID NOT SEEK CHIDANCE	

32

. .

364

11.3c Were they able to provide you with the information you requested? .....

1) YES 2) NO 3) DON'T KNOW

IF NO: What was the problem?_____

11.4 Are there additional services that could be provided and would be beneficial?

NOTE TO INTERVIEWER: REVIEW THE FOLLOWING QUESTIONS FROM THE OBSERVATION GUIDE TO ENSURE THAT THERE ARE NO ADDITIONAL ITEMS YOU NEED TO VERIFY WITH THE MANAGER AT THIS TIME. ANY QUESTION THAT HAD A RESPONSE OF '99' MUST BE ASKED OF THE MANAGER. IF NONE ARE NOTED, SKIP TO THE LAST PAGE OF THIS INSTRUMENT.

365