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## **Analysis of a Local Food System Policy: Evaluating Implementation and Impact**

Julie Lynne Thies  
*University of Tennessee, Knoxville*

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To the Graduate Council:

I am submitting herewith a dissertation written by Julie Lynne Thies entitled "Analysis of a Local Food System Policy: Evaluating Implementation and Impact." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Human Ecology.

Betsy Haughton, Major Professor

We have read this dissertation and recommend its acceptance:

Paula Zemel, Ian Rockett, Jay Whalen

Accepted for the Council:

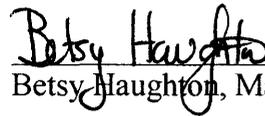
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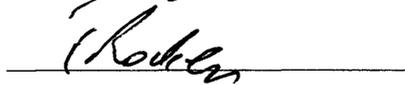
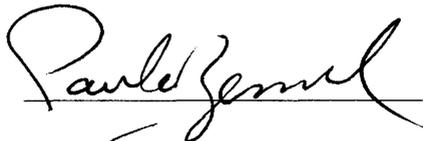
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Associate Vice Chancellor and  
Dean of the Graduate School

**ANALYSIS OF A LOCAL FOOD-SYSTEMS POLICY:  
EVALUATING IMPLEMENTATION AND IMPACT**

A Dissertation  
Presented for the  
Doctor of Philosophy  
Degree  
The University of Tennessee, Knoxville

Julie L. Thies  
May, 2000

## **DEDICATION**

This dissertation is dedicated to my parents

Mr. Edward Thies, Jr. and

Judith L. Thies

who have encouraged me to pursue my education.

## ACKNOWLEDGEMENTS

There are so many people I would like to acknowledge who have helped me to complete this dissertation and deserve recognition. I would like to thank my major professor and mentor, Dr. Betsy Haughton, for directing me through this process. I would also like to thank my doctoral committee members, Dr. Paula Zemel, Dr. Ian Rockett, and Dr. Jay Whalen for all their guidance.

Other persons who have offered support and encouragement are my parents, Ed and Judy Thies; my sisters, Ann Vaught and Cindy Williams; and my loving husband Steve McCullough.

## **ABSTRACT**

The impact of a local food system policy, implemented by a food policy council from 1982 to 1992, on access to food in Knoxville, Tennessee was evaluated in this research study. Both a quantitative and qualitative analysis were completed. The objectives of this study were to: 1) determine whether a local food system policy made an impact on access to food by changing participation trends in three national food assistance programs at the local level; 2) describe this impact; and 3) describe the Council's processes and activities as a means of better understanding how the Council operated and the results of any impact shown on access to food. The quantitative evaluation strategy used time-series analysis to study the changes in participation rates in the Food Stamp Program, Summer Feeding Program for Children, and the Senior Nutrition Program for 20 years in three jurisdictions, Knoxville, Tennessee and the United States. To complement this analysis a qualitative evaluation used content analysis of the monthly meeting minutes of the Food Policy Council. The results showed that the food system policy, implemented through the Food Policy Council, did not have an impact on access to food in these food assistance programs when participation rates were analyzed. However, when simple participation was analyzed impacts were seen in the Senior Nutrition Program and Summer Feeding Program for Children, both discretionary funded programs. This is of value to food policy council's and groups interested in promoting food security, because it may help to target community efforts.

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## **PART 1**

### **GENERAL INTRODUCTION AND OVERVIEW**

## **Introduction**

In 1981 the City Council of Knoxville, Tennessee passed a resolution (1) that food was a matter of local government concern because it directly impacted on the health and well-being of its citizens. The resolution stated that the local government had a proper role of ensuring that all citizens had access to an adequate and nutritious food supply. A food policy council was initiated that year by the Mayor to monitor and advise the Mayor, City Council and community on how they could improve the food system to assure this goal was met (2). Prior to the introduction of the Council, the various constituents of the food system were fragmented. They had no focal point to coordinate their activities, or discuss common concerns, and no source of guidance for food system planning.

The Knoxville Food Policy Council, the first in the United States, was directed to act as a forum for discussion and coordination of the community-wide food supply and distribution efforts, identify food-related problems, offer solutions for their resolution, and develop goal and objectives for the food system (2). Five goals, identified as a basis for a food system policy, were developed (2-3). One of these goals was to ensure that an adequate and nutritious food supply was available to all Knoxville residents. From its inception in July 1982 the Council usually met on a monthly basis and written minutes of the meetings were generated.

Although several food policy councils with food system policies have been created in the United States since 1981 (4-5) and summaries of how they have functioned have been produced (6-7), no systematic analytic evaluation of a local food system policy in relation to access to food has been completed. The present study examines whether a

food system policy, implemented through a food policy council, can impact access to food as measured by participation in food assistance programs. The objectives of this study were to: 1) determine whether a local food system policy made an impact on access to food by changing the trend of participation in three national food assistance programs; 2) describe this impact; and 3) describe the Council's processes and activities as a means to better understand how the Council operated and the results of any impact shown on access to food.

# CHAPTER 1

## Literature Review

### Definition of Policy

Within the literature there are various definitions of policy. Although they are quite similar, no single succinct definition exists. Webster's dictionary (8) defines a policy as any governmental principle, plan, or course of action. Scioli (9) identifies a policy as a guide to action or choice. Milio (10) defines policy as a guide to actions of government aimed at changing what would otherwise occur. A policy is considered the instrument by which societies try to shape their futures in ways they determine are acceptable. Bunn (11) refers to a policy as a statement intended to give guidance on a specific group of more systematic decisions. Nagel (12) identifies policy as governmental decisions that decide on choices, levels, and combinations with regard to controversial ways of doing things. A policy is a blueprint to guide planning of specific actions to attain the policy's desired outcomes or goals (13).

It appears that policy can be considered a plan, method, guide, statement, blueprint or instrument which guides future decisions and, in this case, the decisions of government. Webster's (8) definition may not be an updated, accurate identification of the meaning of policy. A policy is not a plan or program; these result from policies. A policy statement does not identify the procedure for resolving the problem. It does, however, guide plans for services and programs.

## Why do Policies Exist?

A public policy is an ordered effort either to resolve or manage political conflicts or to provide feasible incentives to secure agreed upon goals. Frohock (14) indicates the reason that policies exist is to resolve unacceptable conditions or to reconcile differences that exist between individuals or groups in the community and/or the way government or even private businesses handle them. If the policies are formulated carefully, short-sighted, impulsive decisions can be prevented and consistent actions can be assured.

Policies provide the framework to:

1. select priorities from competing options;
2. guide plans for programs, services, products, or campaigns;
3. set standards for measuring the quality of programs, services, or products;
4. specify eligibility criteria and benefit levels for target populations of programs;
5. allocate funds;
6. select and deploy personnel;
7. generate revenues for programs, projects, or organizational work; and
8. set directions and priorities for research and development (14).

Policy may either be stated explicitly in laws, such as the Personal Responsibility and Work Related Act of 1996, in the speeches of leading officials, or implied in programs or actions (15). The Supplemental Nutrition Program for Women, Infants, and Children (WIC), Temporary Assistance Program for Needy Families (TANF), and the United States Dietary Guidelines for Americans (16) are examples of programs or actions where policy is implied, but not stated explicitly.

Lowi (17) suggests a threefold typology for public policies. The first type of public policy is regulatory policy. Criminal laws are the most common results of regulatory policies. In general, state laws regulate how people should act toward one another. A federal regulatory policy regulates certain areas of social life, communication

and safety. United States governmental agencies involved in setting plans for this type of policy include the Federal Communications Commission and Food and Drug Administration.

Distributive policies grant goods and services to certain parts of the population (17), such as social services assistance and health. Medicare and Medicaid, the Food Stamp Program, and TANF are a few examples of programs resulting from distributive policies. The third type of policy, redistributive policy, rearranges one or more of the schedules of social and economic benefits (17), such as progressive tax policies.

### **What is Policy Analysis and its Purpose?**

What constitutes public policy analysis, who should carry it out, and how it should be done is not universally agreed upon (18). Majchrzak (19) states that policy analysis is the study of policymaking. Typically it is performed by political scientists interested in the processes that lead to policy adoption and the outcomes of those adopted policies.

Generally speaking, the purpose of policy analysis is to improve the quality and effectiveness of policy measures by guiding decision-making and evaluating decisions after the fact. Typically, it is undertaken to reform a system or process (20). The process of policy analysis can occur at any stage of the policy-making process, including policy development, implementation, evaluation, and review. The term policy analysis is used when the analyst attempts to identify and measure systematically the consequences, if any, that result from policy action. Policy analysis has to take into account political and social elements which cannot be measured exactly and which change over the course of

time (21). The analyst specializes in formulating questions that can be answered using existing data and information.

The analyst must be independent of the leaders and organizations responsible for making policy decisions. For this to occur, the analyst must proceed according to published rules and methodologies that: 1) are established prior to and independent of the policy issue at hand; and therefore 2) can be replicated by outsiders. Maintaining objectivity in this process is a constant problem for policy analysts. Policy analysis is not value-free (11).

### *Systems Analysis*

Policy analysis is derived from operations research and systems analysis (18). It may be analogous to Quade's (22) elements of system analysis. These components are: identification of objectives; determination of alternative methods for addressing the issue; determination of the effects of the methods; ranking the alternatives; and model development.

Policies also can be developed through systems analysis (21). The analyst begins first by asking the question, "What is the issue that is being addressed and what is it that the decision-maker wants to do about it"? The decision-makers set clear objectives as to what is to be done about this issue. All of the possible alternatives, such as alternative regulations, are examined and a decision is made as to whether or not any are viable. The consequences of the resulting options or alternatives are analyzed (22). Cost effectiveness analysis is one method an analyst can use to measure the alternatives. The options that best address the issue in terms of the objectives then are ranked. All of the

bits of information are combined in a model and used to predict empirically the array of consequences of the various options. A policy may or may not be adopted.

The policy-making process is also a system. The systems model of policy-making is depicted in Figure 1 (21). Policy is formed by the process of diagnosing and defining a problem, adopting a policy, and implementing, evaluating, and discontinuing or changing the policy (21,23). A policy can be evaluated and changed at any point in this process. The policy process is shaped continuously by the process that formed it. Frohock (14) and Milio (23) consider policy to be always changing and continually being assessed.

Many different stakeholders may be involved in the policy-making process, including government officials, outside interest groups and individual citizens. All interested persons enter into the policy-making process with values about the situation, although they may not be acutely aware of them at the time. These values determine whether there is demand, support, or indifference for a policy (14).

After the policy is adopted, the next critical step is effective policy implementation through programs and plans. An underlying assumption is that the goal(s) of the policy can be met through appropriately implemented plans and programs. Evaluation of a policy is necessary to help assure that policies are guiding governmental decisions appropriately.

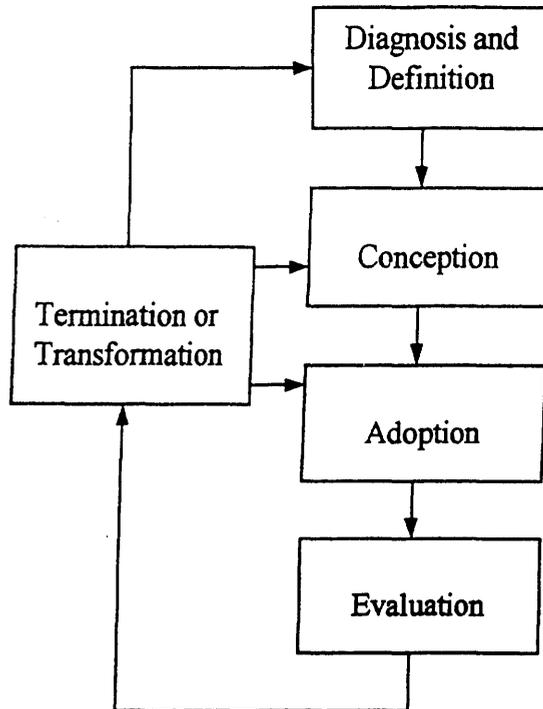


Figure 1. Systems model for policy formation (21).  
Adapted from Starling G. Strategies for  
policymaking. Chicago (IL): The Dorsey Press;  
1988.

## **Techniques of Policy Analysis**

### ***Policy Adoption***

Policy analysts may look at the processes that occurred leading to policy adoption (prospectively) or the outcomes of those adopted policies (retrospectively). Policy analysis literature (24-25) concentrates overwhelmingly on devices for comparing one or two identified policy approaches to a problem. Forecasting and cost-benefit analyses are two commonly used methods.

Forecasting is a technique used to study policy alternatives prior to policy adoption. It is used by policy analysts to reduce uncertainty about the consequences of alternative decisions. Forecasts are empirical projections as to what would happen if a certain policy was implemented. They are single projections selected from a series of possible projections based on currently plausible assumptions (24). Three types of forecasting methods are used. They include: 1) judgmental, intuitive, or qualitative forecasting; 2) time-series extrapolation or trend forecasting; and 3) causal or econometric modeling. To better assure reliability, it is desirable to compare forecast results obtained from each method. Judgmental forecasts are used when empirical data are unavailable. This forecast is a method of reasoning that begins with claims about the future and then works backwards to the information and/or assumptions necessary to support the claims (24).

The second type, trend forecasting, is based on inductive logic (24). It is usually based on some form of time-series analysis or collection of quantitative data at multiple and chronological points in time. The aim of time-series analysis is to provide averages of the amount and rate of change in past or future years. Trend forecasting can be

accurate only when: 1) past observed patterns persist into the future; 2) past variations occur regularly in the future; and 3) trends are measured validly and reliably. Data are affected by secular trends, seasonal variation, cyclical fluctuations, and irregular movements (24). The third type, causal or econometric modeling, makes use of empirically testable laws or propositions that make predictions (24).

### *Policy Evaluation*

A diverse number of research strategies for policy evaluation are described in the literature (21-24). They include experimental designs, field experiments, case studies, sample surveys, and administrative audits of cost-benefit and cost-effectiveness analyses. Experimental designs include a laboratory type setting where there are two randomly constituted groups. Field experiments involve the periodic measurement of some variable, introduction of an experimental event, and identification of a discontinuity in the measurement pattern. Case studies draw inferences based on expectations of what might have happened without an experimental intervention. Administrative audits examine program policies and practices in terms of compliance with internal and external standards (21).

Cost-benefit analysis (24) and cost-effectiveness analysis (24,26) are common methods to analyze a policy's effects. Cost-benefit analysis examines the relative effectiveness of alternative programs (expressed in dollars) judged in relation to economic costs. Cost-benefit analysis is the most systematic tool that is brought to bear on policy issues, but it has its defects. For example, it may be manipulable and it does not decide redistribution issues very well (21). Cost-effectiveness analysis is examined

by costs which continue to be expressed as dollars, but benefits are measured by outcome criteria. The outcomes are expressed in measurable units, such as length of hospitalizations or need for medication (26). Triangulation, or the combination of methodologies in the study of the same phenomenon or programs, is one important way to strengthen any study design, because no single method ever solves the problem of rival causal factors (27).

If one is chiefly interested in intervention effects, a quasi-experimental approach can be used. A policy forecast can be developed, the policy implemented, and the forecast later evaluated at some point in the future. A qualitative approach can be used also. A qualitative method which permits examination of contextual data to determine whether or not they support an hypothesis is called content analysis. Content analysis can help the analyst look at events that occurred as a result of policy implementation. These events can be studied further to describe the activities and results of the implemented policy. Inductively, the evaluator/analyst looks for changes in participants, expressions of change, and program ideology regarding outcomes and impacts (27-28).

Qualitative data include descriptions of events, transcripts of interviews, and written documents. Content analysis allows the researcher to obtain an objective and quantitative description of the content of communication by asking a fixed set of questions about the data in such a way as to produce countable results. It is a process of identifying, coding, and categorizing primary patterns in the data. The content of the data is arranged into categories and into themes (27-28).

Inductive analysis means that patterns, themes, and categories of analysis come from the data; they emerge out of the data rather than being imposed on them prior to

data collection and analysis. The analyst can use the categories developed and articulated by the people studied to organize particular themes. Every program gives rise to special vocabulary that staff and participants can use to differentiate types of activities, kinds of participants, styles of participation, and contributions to the program. Questions that can be asked include: "What language do people in the program use to describe those activities and experiences they have in common?" and "What language comes closest to capturing the essence of this particular process?" (27-28).

To do content analysis, data of written communication materials are needed. Program records and documents serve a dual purpose. They are a basic source of information about program decisions and background, or activities and processes. Also, they can give the evaluator ideas about important questions to pursue through more direct observation or interviews (27-28).

As the analyst begins content analysis, categories begin to emerge from the documents developed by the people studied. There are five general guidelines for development of classification categories in qualitative analysis. They include:

1. that categories should reflect the purpose of the research;
2. they should be exhaustive in that there is a category for every item;
3. they should be mutually exclusive so that each item can be coded in only one place;
4. the assignment of the item to a given category should not affect the assignment of other items; and
5. the categories should be derived from a single classification principle (27).

To increase the reliability of the content analysis two or more coders independently code text for reliability. The codes may be words, letters, numbers, or computer codes (29).

The steps in doing content analysis are to:

1. establish specific objectives to be achieved or hypothesis to be tested;

2. locate data relevant to the chosen objectives. Why the data have been chosen should be clear;
3. present a model which links data with the hypothesis;
4. develop a plan for getting the data. Use a sampling technique to reduce content for data;
5. use a coding or classification system for analyzing the content; and
6. determine specific analytical procedures to be used (27).

### **Food Policy Analysis**

Food policy analysis is the process of research and reasoning designed to discover the complementarities and tradeoffs among food policy objectives and to identify government initiatives in the project, program, and policy arena that can best achieve the objectives. Food policy analysis is concerned with all food-related issues, ranging from agricultural accomplishments to the distribution of nutrient intakes, and the mechanisms to deal with these issues (30).

### ***Definition of Agriculture, Food and Nutrition Policies***

Agricultural policy stakeholders include the institutions or populations associated with food production. Agricultural policy implementation methods include farm price-support legislation, food tariffs, food marketing strategies, and funding and conduct of research and extension services aimed at strengthening future productivity. A goal of agriculture is to have farmers work efficiently with the land and other resources to produce crops. Prices play an important role in influencing the behavior of farmers, and depend on farmers' allocative and technical efficiency (30).

According to Schmandt (31), food policy includes the availability of a wide range of food stuffs, access to food, and availability of food which is safe for human

consumption and at prices that consumers can afford. Food policies primarily are consumer-oriented and implemented through several policies and regulatory measures.

Historically, nutrition policy emerged accompanying certain central concerns, such as improvements in the public's health by preventing dietary deficiency diseases, issues of food safety and antipoverty reforms. More recently, nutrition policy has been concerned mainly with the dangers of overconsumption and unbalanced diets abundant in energy, but inadequate in nutrients (31). In 1977 dietary recommendations for the American public were issued in a report by the Senate Select Committee on Nutrition and Human Needs called *Dietary Goals for the United States* (32). The dietary goals were a statement of nutrition policy. Currently, nutrition policy is stated in *the U.S. Dietary Guidelines for Americans* (16).

According to Timmer (30), food policy encompasses the collective efforts of government to influence the decision-making environments of food producers, retailers and consumers in order to achieve goals. This definition of food policy, therefore, includes both agriculture, food, and nutrition policy. Schmandt (31) considers agriculture, food and nutrition to be three separate types of policies and that agriculture and food policies historically precede nutrition policy. Both Schmandt (31) and Timmer (30) state that agriculture and food policy forces determine what nutrition policy can or cannot do. It is also noted by Schmandt (31) that all three policies need to be reconciled with each other in one policy.

### ***Definition of the Food System***

The food system is composed of those involved in agriculture, food, and nutrition (Figure 2). Agriculture is the basic source of food and farmers are the basic food producers. Once food is produced by farmers, the food manufacturing and marketing sectors then transforms agricultural commodities into the food purchased by wholesalers and retailers. The food then can be bought and eaten by consumers. What consumers eat then affects their nutritional status.

A model developed for the National Nutrition Monitoring System developed by the United States Department of Agriculture (USDA) and the United States Department of Health and Human Services (USDHHS) represents the relationships among the food supply, distribution, food choice, food and nutrient intake and nutritional and health status (Figure 3) (33). The model identifies the major stages at which the effects of food and nutrient intake on nutrition-related health status must be assessed as well as the factors that influence each stage.

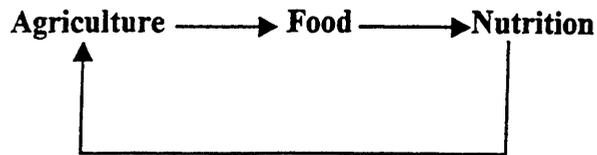


Figure 2. Three components of a food system model.

NATIONAL FOOD SUPPLY → FOOD DISTRIBUTION → CONSUMPTION → NUTRIENT UTILIZATION → HEALTH OUTCOME

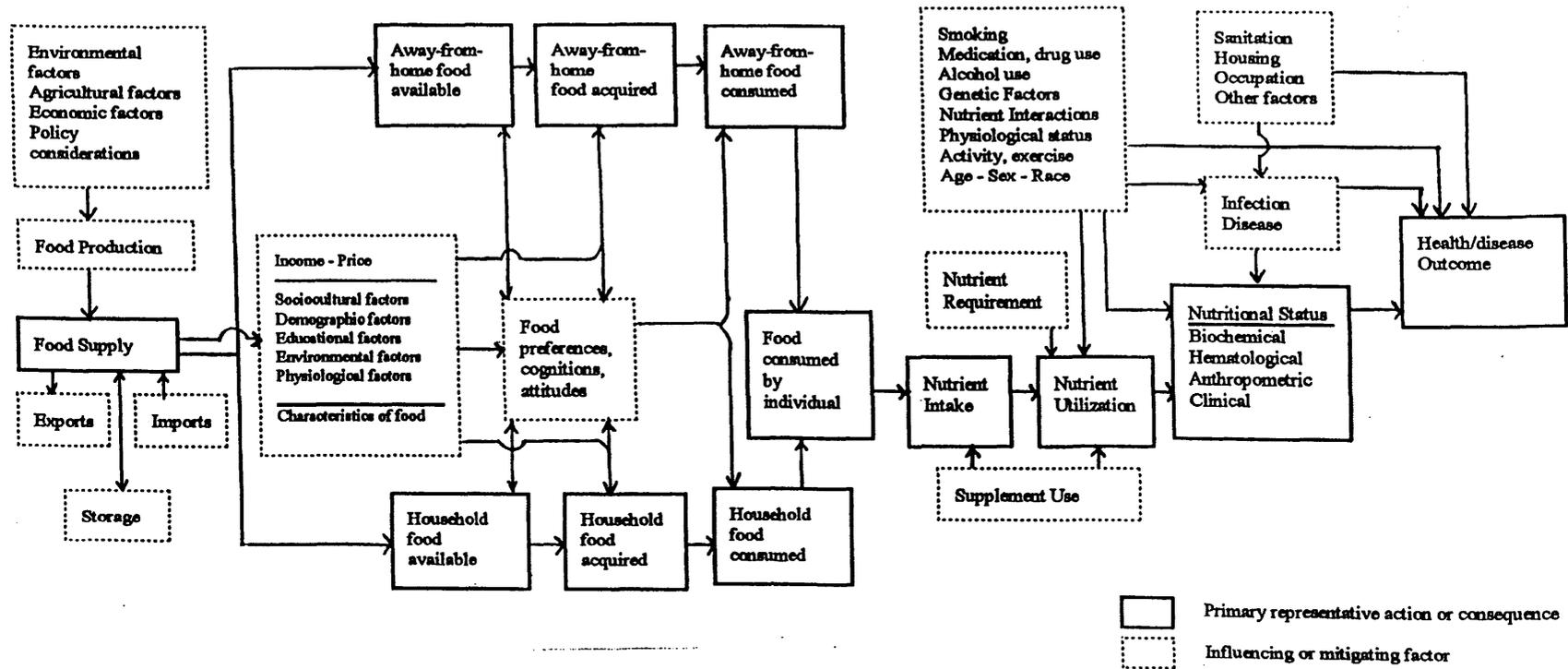


Figure 3. National nutrition monitoring system.

Source: Department of Health and Human Services (US), Department of Agriculture (US). Nutrition monitoring in the United States: an update report on nutrition monitoring. Washington (DC): Dept. of Health and Human Services (US), Department of Agriculture; 1989. US Government Printing Office Publication No. 89-1255.

For policy-makers to influence the process of change, they must understand the environments and behaviors of stakeholders within the food system. A country's food policy is formed at several levels of government, and each level has a different analytical focus and need for food policy analysis. Food policy analysis begins with a definition of the problem and identification of what a society does to intervene. To provide an adequate base for knowledge about a country's hunger problem, for example, data on the related topics of food consumption patterns, nutrition patterns, and family food security must be gathered and explained (30).

Analysts address basic production decisions of what crops to produce, what combinations of inputs to use to produce them, and the total output to produce. The analysis of food consumption can be investigated empirically through economic theory (30). Both sides of the market are important and one needs to consider the structure of the food chain. The demand side, which represents the interface between consumers and the rest of the food chain, determines what food consumers wish and are able to consume. Important factors to consider here are consumer incomes, the level of food prices, and non-economic (quality) factors, such as health and safety. The supply side, including agriculture, the food industry, and international trade, determines which foods are available, in what quantities and of what qualities. If a food is not available for whatever reason, consumers will be unable to buy it. (34).

### ***Food System Policy***

Public policy is a major factor in solving the problem of hunger. The term food system policy is used to link one policy into the entire scheme of the food system; that

being agriculture, food and nutrition. Policy interventions can touch the food system along its entire dimensions from the environment, food production, including agricultural inputs, the foods themselves supplied by the system and consumed by individuals, to the nutrition status and health outcomes of individuals, families, and communities. A food system policy links food production, availability, accessibility, and safety to positive nutrition status.

### **Food System Policies in the International, Domestic, and Local Levels**

#### ***International***

According to Helsing (35) there are economically developed countries that have food system policies or a combination of one or two components of a food system policy: agriculture, food or nutrition policies. In 1974 the World Food Conference recommended that

all governments and the international community as a whole, in pursuance of their determination to eliminate within a decade hunger and malnutrition, formulate and integrate concerted food and nutrition policies aiming at the improvement of consumption patterns on their socioeconomic and agricultural planning (35, p.2).

Helsing (35) also indicates that in the 1970s only one European country had policies related to food. In the 1980s there were 7 European countries out of the World Health Organization (WHO) member states with agriculture, food and/or nutrition policies. They included Norway, with the first policy in 1975, the Netherlands and Denmark, with policies established in 1984, and more recently, Malta, Iceland, Sweden and Finland. The policies of Norway and Finland include both health and nutrition goals and agricultural goals related to farm supply, distribution and production methods,

product development and pricing, public information and monitoring, training and education of health, social and food personnel, mass catering, nutrient labeling and aid to food-poor nations (10). Although Norway labeled its policies as food and nutrition policies, they could be broadly classified as a food system policy. The policies of Denmark and the Netherlands are more confined to mass catering, information and education, which could be considered instruments in food and nutrition policies. Although these policies exist, there have not been systematic methods used to evaluate outcomes. Annual reporting of changes in food consumption patterns in selected areas of the diet and statements of programs initiated as a result of the policies have been published (10).

### *United States*

In 1974 *Science* magazine (36) asked whether the United States was due for a national food and nutrition policy, noting that it had become impossible to talk about nutrition apart from its interrelationship with the world food situation. The federal government as yet has not developed a comprehensive food system policy. Nutrition and food policies do exist in the \$36 billion food programs, but are developed in the absence of a clearly articulated national food system policy (37-38). In 1995 Ellen Haas, who was Undersecretary for Food and Nutrition Services of the USDA, said that USDA had identified three components that made up a comprehensive food policy: nutrition assistance programs, nutrition education, and access to food. Efforts to address access to food included a study of authorized food stamp retailers, a national survey of food stamp

households asking about their access to food, and a third study designed to identify strategies that communities have implemented to improve access to food (39).

National food policies to address access to food have been implemented mainly through large food distribution programs. Poppendieck (40) and Harris (41) provide an excellent historical understanding of the experiences, problems and programs designed by the federal government to address access to food and hunger in the United States. They indicate that through the 1930s and 1940s the major aim of food distribution programs was to dispose of surplus agricultural products, known as commodity distribution, rather than to feed the poor and hungry. This was a basis for the National School Lunch Program, which was established in 1946. During the 1950s and 1960s, the majority of Americans paid little attention to growing reports of poverty and hunger in America.

According to Poppendieck (40), in 1961 President John Kennedy outlined a program to expand food allocation and to initiate eight pilot programs in selected poverty areas. In 1964 the program became available nationally. The Food Stamp Program was available to anyone meeting the eligibility requirements and was the largest food assistance program in America.

In 1966 the School Breakfast Program was instituted. Meal service programs, such as school breakfast, were provided support for meal costs, administrative costs associated with the food service operation, and commodity food support (41). Several reports and documentaries were reported on hunger throughout the late 1960s (41). In 1969 President Richard Nixon announced a "war on hunger" and called a White House

Conference on Food, Nutrition and Health to advise on national policies to eliminate hunger and malnutrition caused by poverty (42).

During the 1970s cash subsidies and vouchers gradually replaced commodities in federal food programs as part of a developing strategy to increase the purchasing power of the poor. Allotments were determined by family size and net income. The Food Stamp Program was expanded, the WIC Program, of which the Supplemental Food Program was a part, and other food assistance programs for children were created. The WIC and Commodity Supplemental Food Programs (CSFP) were created to supplement the food purchasing power of low-income women (pregnant, postpartum, or breastfeeding), infants and children (under age six) at nutritional risk. The CSFP also was created to serve the elderly. Recipients received monthly redeemable food vouchers for food packages based on their health and nutritional status evaluations upon entering the program. Other nutrition programs for the elderly, including the congregate and home-delivered meal programs, were created (43).

At the beginning of the 1980s new national policies shifted a greater degree of responsibility for social programs from the federal government to the states and private sector. At this time there were fewer food-related and economic benefits due to an economic recession (43). The difficulties faced by poor people trying to manage their resources with declining cash assistance benefits provided through public assistance programs were compounded by inflation of housing and utility costs. Between 1973 and 1985 costs of these necessities increased by 161.7%. According to a July 1989 report published by the Center on Budget and Policy Priorities (44), the lack of affordable

housing burdened black families more than their white counterparts, because black families were twice as likely to be poor.

With improvement in the United States economy, Congress adopted the Food, Agriculture, Conservation, and Trade Act of 1990. To balance market supply with demand, the government offered voluntary price support controls. Various monetary incentives, including price supports, supplementary producer deficiency payments, and a minimum grain reserve, were implemented. It continued a series of aggressive agricultural export promotion and subsidization programs (45). The Act placed emphasis on enhancing food security in developing countries, clarified agency responsibilities for food aid programs, and created a government-to-government commodity assistance program (46).

As a result of changing national policies in August 1996, the 104<sup>th</sup> Congress enacted, and the President signed into law, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (15). This law replaced federal payments under the Aid to Families with Dependent Children Program with block grants to the states through the TANF block grant program. This gave greater flexibility to states for program management. Under TANF, federal welfare benefits are limited to five years per participant lifetime and states may set shorter time periods. States also determine benefit levels, what services to fund, and eligibility standards to meet requirements. The new law rewards states with a performance bonus for moving welfare recipients into jobs and also includes state maintenance of effort requirements. For example, in the initial legislation states were to be rewarded if they were: 1) able to reduce the duration of receipt of food stamp benefits by able-bodied adults without dependents; and 2) ban receipt of

food stamps by legal immigrants (15). Eligibility for some legal immigrants was restored at a later time (47). The Act did not block grant the Food Stamp Program, thus preserving the Program's entitlement status, but did result in cost savings by making approximately 1.3 million food stamp recipients ineligible for food stamps (48).

More recently, there has been growing interest in community food security as evidenced by the passage of the Community Food Security Act of 1995 as part of the Federal Agriculture Improvement and Reform Act of 1996 (P.L. 104-127) (49). The legislation provides for \$1 million in fiscal year 1996 and up to \$2.5 million per year from fiscal year 1997 through 2002 for assistance with community food projects. These projects are to be designed to meet the food needs of the poor, to increase self-reliance of communities in providing for their own food needs, and to encourage a comprehensive approach to local food-related issues. In both 1997 and 1998, 18 community food security projects were funded by USDA's Cooperative State Research, Education, and Extension Service (50-52).

In 1999, 17 projects were funded (53). All of these efforts historically have encompassed agricultural, food and nutrition policies. However no single policy or food system policy exists.

### ***Local***

Counties and localities within the United States also have adopted food system policies or either agriculture, food or nutrition policies. In 1981 Knoxville, Tennessee was the first locality in the United States to adopt a food system policy and to create a food policy council (1). Onondaga County, New York followed by initiating food and

nutrition policy efforts (54). The Bureau of Nutrition in the New York State Department of Health adopted the following working definition for its food and nutrition policy: "Food and nutrition policy is a complex array of educational, economic, technical, [and] legislative measures designed to reconcile projected food demand, forecast food supply, and meet nutritional requirements" (55, p. 1). Also at this time the Massachusetts Nutrition Board (56), Minnesota Health and Nutrition Plan (57), and California Interdepartmental Work Group (58) were all initiated.

### **Knoxville's Food Policy as a Model for Local Policy**

In 1981 Knoxville's City Council recognized food as a matter of local government concern. In the late 1970s and early 1980s a study (59) was conducted by The University of Tennessee, Knoxville graduate students and faculty to determine what level of attention Knoxville planning agencies paid to food. The study found that many inner-city residents, especially the elderly and poor, had limited access to food and that there was no agency serving as a focal point to coordinate food supply monitoring and assist in planning at the local level. At about the same time the Knoxville Community Action Committee investigated and reported on the problems of the poor and access to food. This federally sponsored grant project revealed inner-city residents did have problems with access to food (2).

These two studies (2,59) prompted the Mayor to present a resolution on food policy to the City Council. The resolution passed and stated that "local government has a proper role of ensuring that all citizens have access to an adequate and nutritious food supply" (1). It charged an interagency group made up of the Community Action

Committee, Department of Community and Economic Development and Metropolitan Planning Commission to develop a strategy to improve food supply in the inner city. The interagency group recommended that a food policy council be formed. Consequently, a food policy council was formed to monitor and evaluate Knoxville's food system in terms of cost, availability, accessibility, and implications for public health and economic efficiency. The council was to identify food-related problems, notify the public, offer solutions, develop goals and objectives for the food system, and act as a forum for discussion and coordination of community-wide food supply and distribution efforts (2).

Five goals, which could be identified as a basis for a food system policy, were developed:

1. Ensure that an adequate and nutritious food supply is available to all citizens;
2. Strengthen the economic vitality of the private food industry;
3. Improve the quality of food available to all citizens;
4. Encourage citizens to accept and consume nutritious food; and
5. Minimize food-related activities which degrade the natural environment; limit wasteful use of scarce resources needed for future food production and distribution (2,3).

Prior to the resolution, the complex system which supplied food was quite segregated. There was no focal point where various elements of the food industry, food-oriented public agencies, concerned consumers, or other could coordinate their activities and discuss common problems or interests (2).

The Knoxville Food Policy Council originally consisted of 7 members (60) and, as of 1992, now consists of 9 members (61). The members are appointed by the Mayor of the City of Knoxville for a term of three years. The Food Policy Council bylaws determine the method of selecting the chair and vice-chair. People who serve on the

Council are those with governmental ties, ties to the food business and those involved with neighborhood and consumer interests (62). The Food Policy Council is responsible to the Mayor, City Council and to the people in an advisory capacity. Staff resources include the Community Action Committee, Metropolitan Planning Commission and the Department of Community and Economic Development. An extensive system of officially appointed advisory committees, consisting of existing food-oriented organizations, general purpose organizations, and technical advisory groups, has been developed (2). The lines of responsibility and communication of the Food Policy Council are shown in Figure 4.

The general long-term mission of the Food Policy Council is to monitor how well Knoxville's food system is performing, and to identify ways in which various agencies of the community can help maintain and/or improve system performance. Annual reports have been written, and committee meetings and workshops have been held by the Food Policy Council since its adoption in July 1982. Dalhberg (6) reported on the Knoxville Food Policy Council and concluded that cities have to be more self-reliant and efficient in their food systems as federal and state resources decline. His summary report to the Food Policy Council described food-related needs in Knoxville that required additional work and proposed challenges for the future.

### **Assuring Access to Food: One Aspect of a Food System Policy**

Despite the fact that in 1996 almost \$36 billion of federal funds were devoted to food assistance programs for American families and single persons, food insecurity and hunger due to lack of adequate financial resources continue to be a problem (63-64).

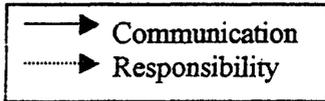
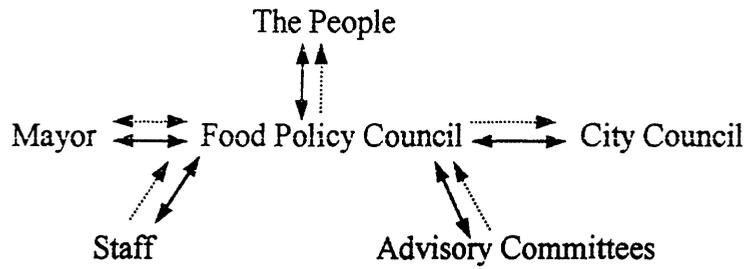


Figure 4. Lines of responsibility of the Knoxville Food Policy Council.

Definitions of hunger and food insecurity have been identified to provide a conceptual basis for designing measurement tools for quantifying these conditions (65).

### ***Definition of Hunger and Household Food Security***

The definitions of hunger and food insecurity clarify their distinctiveness and how they are distinct from medical and social definitions (65). These definitions are:

*Hunger* - The uneasy or painful sensation caused by a lack of food. The recurrent and involuntary lack of access to food. Hunger may produce malnutrition over time (64, p.5).

*Food Security* - Access by all people at all times to enough food for an active, healthy life. Food security includes at a minimum: (1) the ready availability of nutritionally adequate and safe foods, and (2) an assured ability to acquire acceptable foods in socially acceptable ways (e.g. without resorting to emergency food supplies, scavenging, stealing, or other coping mechanisms) (64, p.5).

*Food Insecurity* - Limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways (64, p.5).

Therefore, using these definitions, hunger occurs as a consequence of food insecurity or by the limited availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire food in socially acceptable ways. Food insecurity does not always result in hunger, but there is the potential for this to happen. Therefore, food security is a measure of the existence of adequate resources to prevent hunger. Financial resources clearly impact access to food and poverty may result in food insecurity and hunger.

### ***Definition of Community Food Security***

The definitions of hunger and food insecurity are consistent with the sequence of household conditions and behaviors that were observed in early research with hunger

measurement, such as seeking food from abnormal sources, changing behaviors, and changing meal composition (66-67). However, community food security looks more broadly at community actions and the food system, rather than just the household or individual, for the source of problems and solutions that contribute to food insecurity and hunger (68). In this approach the community supports efforts to allow individual food self-sufficiency. Enclosed within any community is a food system that can be evaluated for deficiencies that can contribute to food insecurity and also for solutions to assure food security. It is suggested (69) that the assurance of community food security could occur if the community takes a prevention approach by providing long-term solutions to food insecurity. It is about building partnerships between public and private sectors and between consumers and producers to create a more sustainable food system. How does one measure hunger, food security, and community food security?

### ***Measures of Hunger and Household Food Security***

Reliable measures of household food security and hunger with consistent estimates of their prevalence in the population is a major goal of the Food Security Measurement Project, an ongoing collaboration among federal agencies, academic researchers, and non-profit organizations (65,70). As a result of this collaboration, a survey instrument was developed to measure food insecurity and hunger which results from not being able to afford food. It has been used to understand the severity and extent of food insecurity and hunger among United States households due to the lack of financial resources to obtain food.

The project was initiated as a result of the National Nutrition Monitoring and Related Research Act of 1990 (NNMRR) (71). Congress recognized the need to bolster the scientific and data resources devoted to assessing nutritional well-being in the United States population. The ten-year plan developed under the Act specified the development of a standardized mechanism and instrument(s) for defining and obtaining data on the prevalence of food insecurity or food insufficiency in the United States. The instrument was to be used also in all aspects of the NNMRR Program and at state and local levels. The staff of the Food and Nutrition Service (FNS) of USDA started reviewing the existing literature in relation to hunger. They paid particular attention to the conceptual basis for measuring food insecurity and hunger severity and to the practical problems of developing a survey instrument feasible for use in sample surveys at the national, state and local levels (72).

In January 1994 the FNS joined with the United States Public Health Service and Centers for Disease Control and Prevention's National Center for Health Statistics in sponsoring a national conference on food security measurement and research (73). The conference brought together leading academic experts and other private researchers with key staff of the concerned federal agencies. During the conference an appropriate conceptual basis for a national measure of food insecurity and hunger was agreed upon by the researchers and the foremost operational form for implementing such a measure in national surveys was identified.

In 1995 an extensively tested and analyzed 18 item survey was fielded by the United States Census Bureau as a supplement to the Current Population Survey (CPS) (74). These questions were asked subsequently for the next four years on the CPS.

Household prevalence levels for food secure, food insecure without hunger, food insecure with moderate hunger, and food insecure with hunger were obtained. A second conference was held in 1999 where a federal interagency working group on food security measurement provided USDA with an assessment of the food security measurement project and suggested guidelines for advancing research. These measures have been added to the fourth National Health and Examination Survey (NHANES 4), the Survey of Program Dynamics, Continuing Survey of Food Intake by Individuals (CSFII) and the Early Childhood Longitudinal Study (74).

### *Prevalence of Food Insecurity*

It is estimated, according to the food security supplement of the CPS, that about 10% or 10.5 million United States households are food insecure with virtually no percent change in this rate from 1995 to 1998 (70). This is equivalent to 36 million people of which 40% or about 14 million are children. Of the 10.5 million households that are experiencing some degree of food insecurity, about 3.7 million reached a level of severity great enough that one or more members are hungry at least some time during the period due to inadequate resources for food. Among those who are food insecure, single women with children (31.9%), Hispanic and Black households (21.8% and 20.7%, respectively), and households below the poverty level (35.4%) have rates higher than the national rates. Overall, households with children experience food insecurity at more than double the rate for households without children (15.2% versus 7.2%). The elderly also experience food insecurity (5.5%) but at lower rates than the national rates.

## **Determinants of Food Insecurity and Hunger**

Wehler (75) developed a conceptual model of the interrelated factors associated with poverty and hunger at the household level. The model does not depict all of the possible factors associated with poverty and hunger, nor does it include all possible relationships. However, it offers a graphic representation of the sequential nature of the determinants of hunger and some of its outcomes (Figure 5). Economic resources, or household purchasing power, are pivotal factors in determining hunger. However, community characteristics, such as the number and type of food stores, the availability of transportation systems and the availability and acceptability of public assistance programs, can affect a household's access to food also. Resources, education or knowledge, food accessibility and various household features determine the quality and quantity of household food available. Low-income households can enhance availability by relying on friends, relatives and/or private charity.

Several researchers (43,76-77) agree that major barriers to being able to acquire food are not having enough money or being poor and lack of access to food and nutrition programs. The Commission on Religion in Appalachia (78) provides evidence that the poor have more restricted access to stores than the non-poor and are often forced to pay higher prices for food. Many low-income neighborhoods are served predominantly by smaller independent grocery stores, or "mom and pop" type stores, thereby limiting consumption choices. During the 1970s and through the 1990s major supermarkets migrated away from the inner cities and low-income areas, toward suburbs (79-80). As these trends continued, low-income urban and rural consumers were faced with fewer food markets in the immediate vicinity of their homes and greater expense in accessing

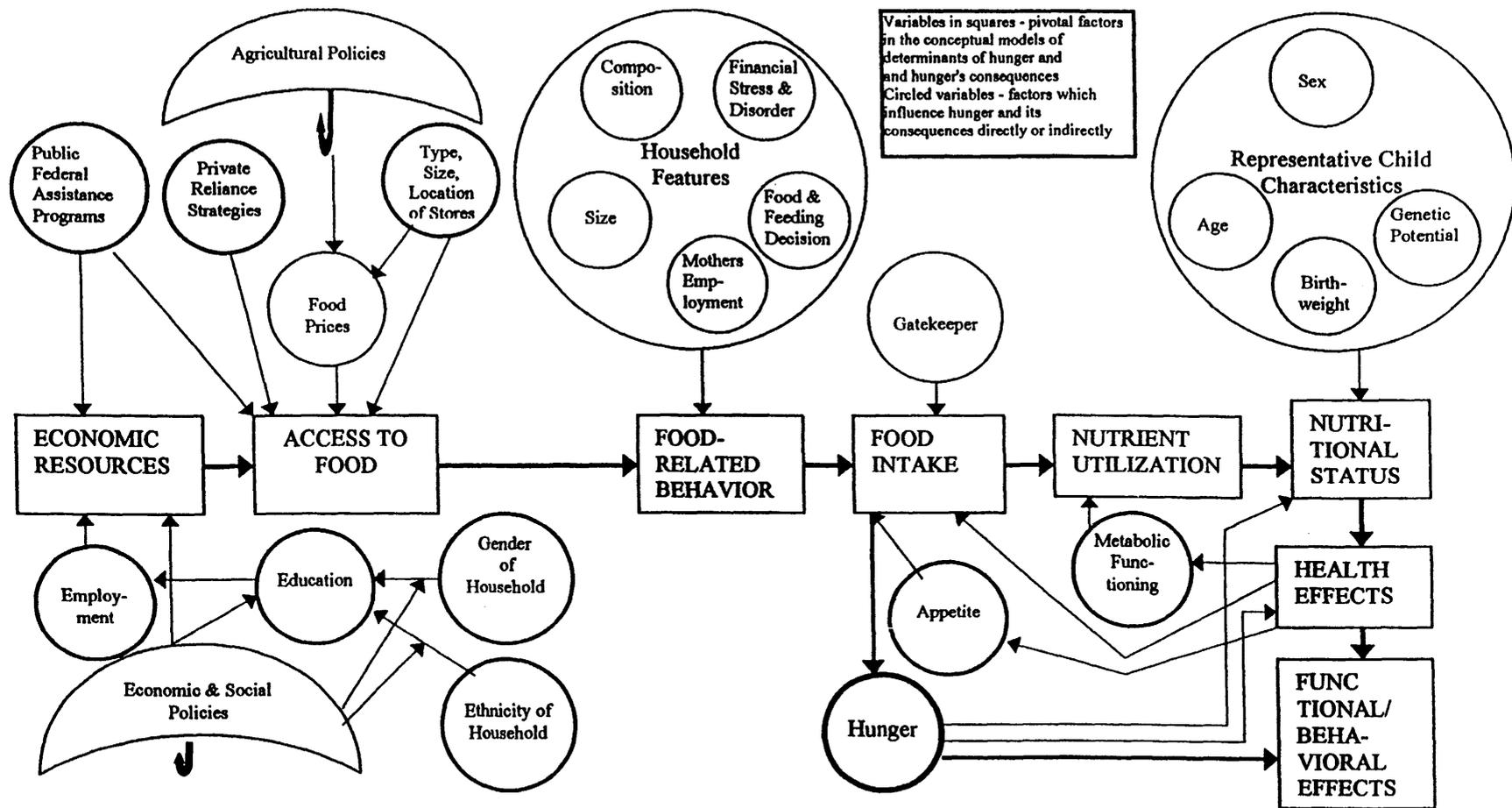


Figure 5. Factors associated with hunger and its outcomes

Source: Wehler CA, Scott RI, Anderson JJ. The community childhood hunger identification project: a model of domestic hunger--demonstration project in Seattle, Washington. J Nutr Educ 1992;24 Suppl 1:32.

reasonably priced food (81). A report released by the Economic Research Service of USDA indicated that most low-income households were not located within walking distance of a supermarket. This made shopping for food a difficult proposition for low-income people, because it meant they had to find some means of transportation to get them to a grocery store. Living in a community without transportation prevented some from traveling to or from town for food. Consequently, they relied on local stores which often charged substantially higher prices (81).

Wehler's model (75) consolidates four community characteristics which influence a household's access to food (Figure 6). They include the type size, and location of food stores, food prices, private reliance strategies, and the availability and acceptability of public federal food assistance programs. Transportation systems in turn influence access to available food stores. Participation in private and public assistance programs and changes in shopping behaviors or food pricing may all be used as quantitative indicators of access to food.

Participation rates in public assistance programs, such as emergency food pantries, emergency food shelters, food banks, food stamps, school breakfast, school lunch, WIC, commodity supplemental food program, congregate meals, mobile meals, and TANF can be used to measure access to food. Changes in shopping behaviors might include changes in transportation systems allowing for greater access to stores and competitive food pricing shopping, while changes in size, type, or location of grocery stores can also be quantitative measures of access to food.

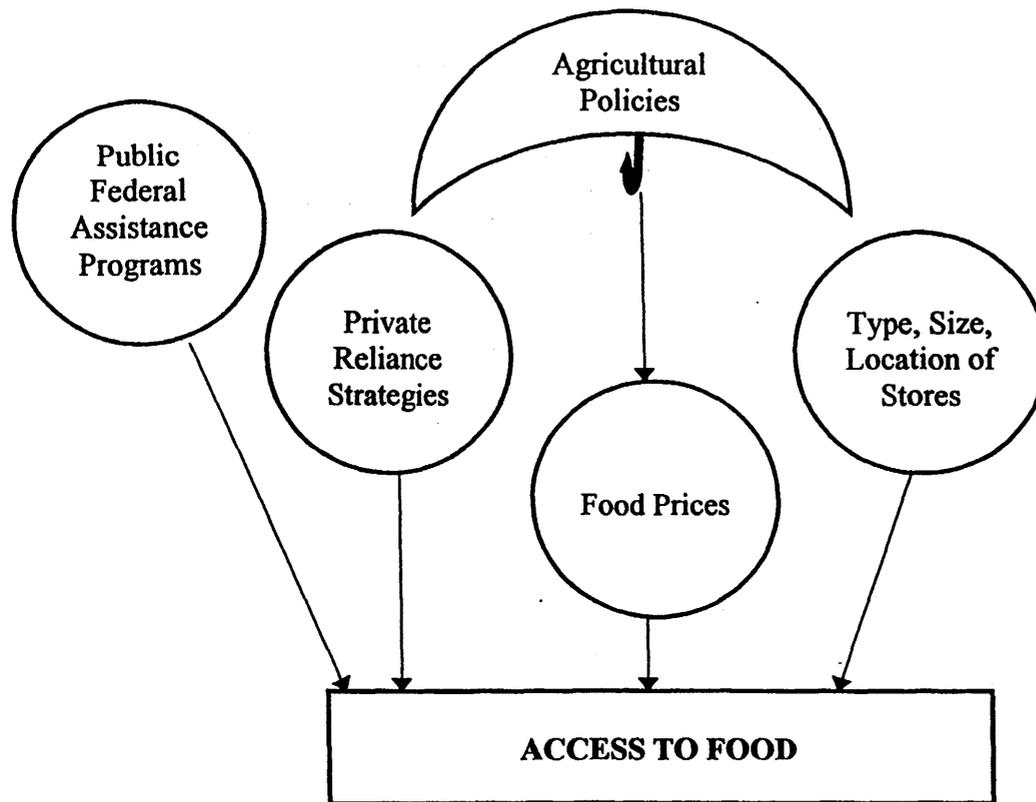


Figure 6. Characteristics which influence access to food.  
Source: Wehler CA, Scott RI, Anderson JJ. The community childhood hunger identification project: a model of domestic hunger--demonstration project in Seattle, Washington. J Nutr Educ 1992;24 Suppl 1:32.

## **Determinants of Community Food Insecurity**

Research on food system policies, especially Knoxville's comprehensive food system policy, and the determinants of household food insecurity and hunger provide a basis for a model of the determinants of community food insecurity. Knoxville's model and existing research (2,3,10,30-31,33,75) supports a proposed model for the determinants of community food insecurity.

## **Policy as a Means of Assurance of Food Security**

Development and implementation of appropriate, systematic food system policies may be a means of addressing hunger. Sound food system policies could assist in addressing the problems that impact on all those involved in the food system. Given the persistence of malnutrition and hunger despite national food self-sufficiency, policymakers have to rethink the nature and causes of food insecurity and the methods to address these (82).

At the International Conference in Rome (83) in December, 1992 policymakers from throughout the World worked to define common goals for improving nutritional status of their populations and to identify common strategies to achieve these goals. The co-sponsoring United Nations agencies included the WHO and the Food and Agricultural Organization. At no time were countries requested to bring their own national food and nutrition policies, because most countries, including the United States, did not have one. From the standpoint of the organizers of the conference, policies to promote dietary changes to reduce chronic disease risk were just as essential as those to increase food availability (83). This approach is consistent with a food system policy.

As a result of the Conference, the USDA prepared strategies and actions to ensure access to food and published them in a document titled "Nutrition Action Themes for the United States" (84). At the World Food Summit held in November, 1996 in Rome 187 countries were brought together to address issues of world food security. A major outcome of the summit was agreement by these nations, including the United States, to adopt seven commitments as part of the World Food Summit Plan of Action. The objective of these commitments was to reduce undernourishment in the world by half by no later than the year 2015. On May 21, 1997 USDA provided a forum for discussion across the United States as a follow up to the meeting in Rome to develop a United States Action Plan. The intent of these discussions was to identify the priorities, actions and commitments that the United States government and others would undertake to achieve greater food security at home and abroad. Fifteen sites across the United States were chosen as consultation sites. On November 5, 1997, a workshop regarding the Action Plan was held to facilitate public participation in the process of writing the Plan (85). The results of the consultations, workshops, and "Nutrition Action Themes for the United States" document developed after the 1992 International Conference in Rome, helped in developing the United States Action Plan. By early 1999 the United States Action Plan on Food Security was completed (84). The strategies in the Plan include recommendations based upon a food system model. The United States Action Plan offers an opportunity to impact global food security. The Knoxville Food System policy also offers an opportunity to impact local food security.

## **CHAPTER 2**

### **Rationale**

Research on policies and work to date suggest that food system policy is a comprehensive way to address issues of agriculture, food and nutrition. There are few models for this. One does exist, however, in Knoxville, Tennessee where a food system policy has been in place since 1981 (1). One aspect of this food system policy is access to food. The question arises about what impact the Knoxville food system policy has had on access to food, a factor that influences hunger. Specifically, what impact has it had on the goal of assuring that an adequate and nutritious food supply is available to all citizens of Knoxville? The impact of the local food system policy on access to food, implemented through a Food Policy Council, was evaluated in this research study. Both quantitative and qualitative analyses were completed.

## **CHAPTER 3**

### **Objectives**

The objectives of the study were to 1) determine whether the local food system policy made an impact on access to food by changing the trend of participation in three national food assistance programs at the local level; and 2) describe the Council's processes and activities to better understand how the Council operated and the results of any impact shown on access to food. The quantitative evaluation strategy used time-series analysis to study the changes in participation rates in the Food Stamp Program, Summer Feeding Program for Children, and the Senior Nutrition Program for 10 years in three jurisdictions: Knoxville, Tennessee and the United States. A summary of the quantitative analysis and results is found in Part 2. To complement this analysis a qualitative evaluation of the monthly meeting minutes of the Food Policy Council was conducted using content analysis. A summary of the qualitative results is found in Part 3. Part 4 addresses the findings found in both the quantitative and qualitative analyses and make recommendations regarding how food policy councils and groups interested in promoting community food security might target their efforts.

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**PART 2**

**ACCESS TO FOOD: A QUANTITATIVE EVALUATION  
OF A LOCAL FOOD SYSTEM POLICY**

# **CHAPTER 1**

## **Introduction**

In 1981 the city of Knoxville, Tennessee recognized that a new, broader approach to resolve hunger and assure food security for all its citizens was needed. This stemmed in part from two studies on food-related issues and was brought to the attention of the City Council by the Mayor (1-2). Local government acknowledged that all Knoxville citizens had the right to a nutritious food supply that was always available and could be acquired through normal sources (3). Previous approaches to food security were based on hunger relief, in so far as food was provided to individuals or families when their funds were insufficient. The city recognized that the provision of emergency food relief programs was necessary in certain situations, but this did not resolve the problems of household food insecurity and hunger (2). The prevention of food insecurity became the focus. The Knoxville community, rather than the hungry individual or family, was the source for identification of both the problems and solutions associated with hunger and food insecurity. Enclosed within the community was a food system that was to be evaluated for deficiencies that contributed to food insecurity and for solutions to assure community food security (3).

Food systems policy became an official responsibility of the city of Knoxville when a resolution was passed in 1981 by the City Council stating that food was a local government concern, because it directly impacted the health and well-being of its citizens (1). The following year a Food Policy Council was formed at the request of the Mayor to

monitor the city's food system and make recommendations to the City Council, Mayor, and citizens of Knoxville for its improvement. Five goals, forming a food system policy, were developed by the Council to guide food-related planning at all points of the food system considered important for the city's needs (4-5).

One of these goals was to ensure that an adequate and nutritious food supply was available to all citizens in Knoxville (4-5). Assurance of the availability of food is demonstrated when food always exists in a community and is accessible by its citizens. Several factors which influence access to food were identified by Wehler and colleagues (6). The researchers developed a model to describe factors that influence access to food and hunger. The number and type of food stores, availability of transportation systems, agricultural policies and their impact on food prices, and availability and acceptability of private food sources and public federal assistance programs are all community characteristics which influence households' access to food. Knoxville and other communities recognized that access to food, through participation in food assistance programs, was an important means for individuals and families who did not possess sufficient money to obtain food (7).

The purpose of this study was to examine whether Knoxville's food system policy, guided by the Knoxville Food Policy Council, made an impact on Knoxvillians having access to food from food assistance programs. It was done to draw conclusions about whether or not participation in local food assistance programs was influenced by the presence of a local food system policy. To date, no systematic quantitative analysis of

the impact of the policy has been examined. The information obtained in this analysis can be used by food policy councils or other groups interested in trying to achieve community food security at the local level.

## CHAPTER 2

### Methods

To determine whether or not participation in these programs was influenced by the local food system policy, analysis of changes in participation rates in nine food assistance programs over a 20 year period of time in three jurisdictions was completed. The research tools used in this study were those employed typically in systematic policy analysis and evaluation research (8-11). The evaluation strategy used incorporated a quasi-experimental research design (12). Table 1 depicts the terminology used in the analysis of the study's research questions and design.

The letters L, S, and N in Table 1 indicate local, state and national jurisdictions, respectively. The abbreviations T1 and T2 indicate Time 1 or Time 2. Therefore, the abbreviation  $L_{T1}$  indicates the trend of participation in a food assistance program in Knoxville for Time 1, pre-Council. Changes in trends of participation in food assistance programs for 20 years were analyzed; 10 years prior to the initiation of the food system policy and Food Policy Council and 10 years after initiation. Specifically, the years included for the study were 1973 to 1982, pre-Council years identified as Time 1, and 1983 to 1992, Council years identified as Time 2. The year 1983, one year after the Council's organization, was identified as the intervention point, X, to begin Time 2. The year 1983 was used to allow time for the Council, originated in early 1982, to organize and have a potential effect on access to food by influencing participation in food assistance programs. Trends in participation in food assistance programs in Knoxville in Time 1 were compared to trends in Time 2 to determine if trends changed after the

Table 1. Terminology used in analysis of research questions and quasi-experimental research design using control group, time-series analysis.

GROUP (Jurisdictions)	TIME		
	1 Pre-Council	Intervention	2 Council
Experimental Group (Knoxville) Local (L)	$O_a--O_{a+1}--\dots O_{a+9}$ $L_{T1}$	X	$O_b--O_{b+1}--\dots O_{b+9}$ $L_{T2}$
Control Group 1 (Tennessee) State (S)	$O_a--O_{a+1}--\dots O_{a+9}$ $S_{T1}$		$O_b--O_{b+1}--\dots O_{b+9}$ $S_{T2}$
Control Group 2 (United States) Nation (N)	$O_a--O_{a+1}--\dots O_{a+9}$ $N_{T1}$		$O_b--O_{b+1}--\dots O_{b+9}$ $N_{T2}$

Note: (O) indicates an observation of participation in a food program; (a) first year an observation of participation was obtained prior to initiation of the food system policy; (b) first year an observation of participation was obtained after initiation of the food system policy; (X) year food system policy and Council were implemented.

Council's development and during its operation. However, extraneous factors could have accounted for any observed effect, making it difficult to evaluate the impact of the policy alone (12). This problem was alleviated partially by using jurisdictions without a food system policy as comparison groups. Tennessee and the United States were selected as control groups, because they did not have food system policies and comparable measures of participation in food assistance programs were available. All of the programs that were identified for analysis, with the exception of one, a local program, were federal programs with eligibility guidelines that impacted all individuals the same regardless of where they lived.

If trends in participation were the same between Knoxville, Tennessee, and the United States, then it was concluded that influences on participation were similar and there was no impact of the food system policy at the local level. If trends in participation were different from state and national trends, then it was suggested that the food system policy, guided through the Food Policy Council, probably had an impact on changing local trends.

More specifically, this can be expressed:

1. If  $L_{T1} = L_{T2}$ , then the trend lines were the same in Knoxville before and after the development of the policy and Council. If  $L_{T1} \neq L_{T2}$ , then there were changes in the trends of participation between Time 1 and 2. This change might have been the result of the food system policy. However, only further analysis and comparison to the control groups would determine this. If the same results occurred at the state or national levels, whether or not the trends stayed the same or changed, then it was concluded that the influences that shaped the trends in participation were the same in all jurisdictions and the food system policy did not impact participation in Knoxville.
2. If  $L_{T1} = S_{T1}$  and  $L_{T2} \neq S_{T2}$  and  $L_{T1} \neq L_{T2}$ , then the local trend changed from

Time 1 to Time 2. It would be reasonable to assume that the local food system policy had an impact on changing this trend in participation because similar changes did not occur at the state level. Further evaluation of  $N_{T1}$  and  $N_{T2}$  trends would increase the certainty of this assumption.

3. 3. If  $L_{T1} = S_{T1} = N_{T1}$  and  $L_{T2} = S_{T2} = N_{T2}$  and ( $L_{T1} = L_{T2}$  or  $L_{T1} \neq L_{T2}$ ), then the influences on participation were the same for all three jurisdictions and the local food system policy did not impact participation in the food assistance program. The influences on participation were the same in Knoxville, the state of Tennessee, and the United States.
4. However, if there were differences in Time 2, then it could reasonably be assumed that the food system policy had an impact on participation at the local level. If  $L_{T1} = S_{T1} = N_{T1}$  and  $L_{T2} \neq S_{T2}$  and  $L_{T2} \neq N_{T2}$  and  $L_{T1} \neq L_{T2}$ , it was suggested that the food system policy probably had an impact on changing the trends in participation in Knoxville.

The changes in trends of participation between Time 1 and Time 2 in each selected food assistance program in the United States, Tennessee, and Knoxville, addressed the question of whether the food system policy made an impact on participation in food assistance programs in Knoxville.

### **Program Selection**

Nine food assistance sources were identified for this analysis: Food Stamps, three Child Nutrition Programs (National School Lunch Program, National School Breakfast Program, and Summer Feeding Program for Children), two Senior Nutrition Programs (Congregate Meals and Home-Delivered Meals), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Commodity Supplemental Foods Program, and emergency food assistance. The local emergency food assistance program, Emergency Food Helpers, was the only food source not administered by the federal and

state governments and, therefore, comparisons to state and local programs were not possible. The food assistance sources selected were those accessible by Knox County residents prior to and after creation of the Food Policy Council.

### **Data Selection**

Each program recorded participation according to its own accounting methods. Program participation was recorded as the total number of meals served, total households or individuals participating, or average daily participation per year beginning in 1973 and ending in 1992. Local directors were contacted to verify availability and consent to gather data from each of the programs. After approval from the program directors, data were gathered by review of historical records and documents maintained by local agency personnel. If local records were not maintained, the appropriate state agency was contacted and data gathered. If the state agency did not maintain records, the appropriate federal agency was contacted. Appendix A tracks the agencies and sources for data obtained.

Trends in participation were analyzed two ways: total participation and participation rates. Program participation was analyzed as, for example, the total number of meals served divided by time, or simple trend lines. Additionally, rates were calculated to show how much participation was representative of the changes in population and to add more equivalency between the jurisdictions for comparison (Table 2). Therefore, participation rates for each program were calculated by dividing by

Table 2. Participation rates as outcome measures of access to food for three food assistance programs in this study.

Program	Outcome Measure (Participation Rate)
Food Stamps	Number of persons participating/1,000 population Number of households participating/1,000 households
Summer Feeding Program for Children	Total number of meals served/1,000 population (age 5-14 years) Average daily attendance/1,000 population (age 5-14 years)
Senior Nutrition Program	Total number of meals served (congregate and delivered)/1,000 population (age 65 years and over)

the number of people in each jurisdiction for that year. Initially, attempts were made to determine the size of the eligible population for each program year and each jurisdiction. However, these data were not available. Yearly population data and estimates of the total population for inter-census years were gathered from the United States Census Bureau reports (13-15).

## **Data Analysis**

### ***Simple Trend Lines and Rates***

Trend lines for program participation for 20 years were developed using actual data from programs. First, missing data were extrapolated using the Maximum Likelihood test in simple linear regression available in Statistical Analysis Software

(SAS, release 6.09, 1989, SAS Institute, Cary, NC) (16). This test required four continuous data points to extrapolate data. Next, using actual and extrapolated data, simple linear regression was used to describe trends for each program and jurisdiction. Any four data points were required for this analysis. If sufficient data were not available to describe a trend, then simple linear regression could not be performed and that program's participation could not be analyzed.

For each program, differences for trend lines and trend line rates were evaluated both descriptively and statistically between Time 1 and Time 2. The statistical programs employed to analyze these trends were SAS System (SAS) (16) and Statistical Package for the Social Sciences (SPSS) (release 5.0, SPSS, Chicago, IL) (17). Simple linear regression with Durbin Watson tests for autocorrelation were used for the comparison and contrast of trends and to determine the direction, if any, of a trend for each time period for each program. Simple linear regression was used to determine if the trend in Time 1 or Time 2, for any of the three jurisdictions, local, state, or national, was linear or could not be described as linear. If a linear trend was established for any period or jurisdiction ( $p \leq 0.05$ ), simple linear regression also identified whether the trend line included a positive slope, indicating increasing participation, or a negative slope, indicating decreasing participation. A p-value of  $\leq 0.05$  was used because this is commonly found in policy analysis research (18-20). Wilcoxin Paired Rank Sum Tests, which test the difference between the difference of paired data points, were used to test statistically ( $p \leq 0.05$ ) whether two trends, both linear or both non-linear, were the same

trend. The SAS and SPSS statistical programs used in this study are found in Appendix

B.

## CHAPTER 3

### Results

Data were gathered for 9 programs. Every effort was made to gather data from agency records and documents. However, the programs were not required to keep records of participation historically and some years contained missing data. For 5 of the 9 programs the amount of missing data did not allow for data extrapolation and analysis of trend lines. These 5 programs were: National School Breakfast, National School Lunch, the WIC Program, Commodity Supplemental Food, and emergency food assistance. Trends for 4 programs, Food Stamps Program, Summer Feeding Program for Children, and the Senior Nutrition Program's Home Delivered Meals and Congregate Meals, could be analyzed. However, Senior Nutrition Program participation was only available as combined home-delivered and congregate meal participation information. Therefore, 3 programs were analyzed. The data that were used in this analysis are found in Appendix C.

#### **Analysis of Trends for Three Federal Food Assistance Programs: Comparing Local, State, and National Trends by Participation**

For Food Stamps 20 years of data were analyzed. The Summer Feeding Program did not keep records of participation prior to 1977 at the state and national levels. Data were available for years 1974 - 1992 in the Senior Nutrition Program. Despite the lack of data for the entire 20 year period, enough data were available for analysis of trend lines.

## *Food Stamp Rates*

**Person participation rate.** The rate of persons participating per 1,000 population in Food Stamps in Knox County compared to Tennessee and the United States is presented by year (1973 - 1992) in Figure 1. The trends in participation in Food Stamps changed in Time 2 compared to Time 1. During Time 1, 1973 to 1982, local participation linearly increased. The participation rate in Time 2, 1983 to 1992, could not be described as linear. Therefore, participation rate trends differed in Time 1 and Time 2. The rate of persons participating in Food Stamps in Tennessee and the United States showed similar trends to those in Knox County, with an increasing linear trend in Time 1 and a different non-linear trend in Time 2.

For all jurisdictions in Time 1 the same increasing linear trend was seen. In Time 2 for all three jurisdictions the trend changed and could not be described as linear. Because the trends were similar between jurisdictions, these data support the conclusion that influences on participation were similar and the local food system policy did not have an impact on participation in Food Stamps.

**Household participation rate.** When Food Stamp participation rates were analyzed for households, the results were the same as those for individual participation. All three jurisdictions showed the same trends in Time 1 and 2 (Figure 2).

In Time 1 the trends in household participation rates linearly increased and the trends in Time 2 were not able to be described as linear. Therefore, because the trends

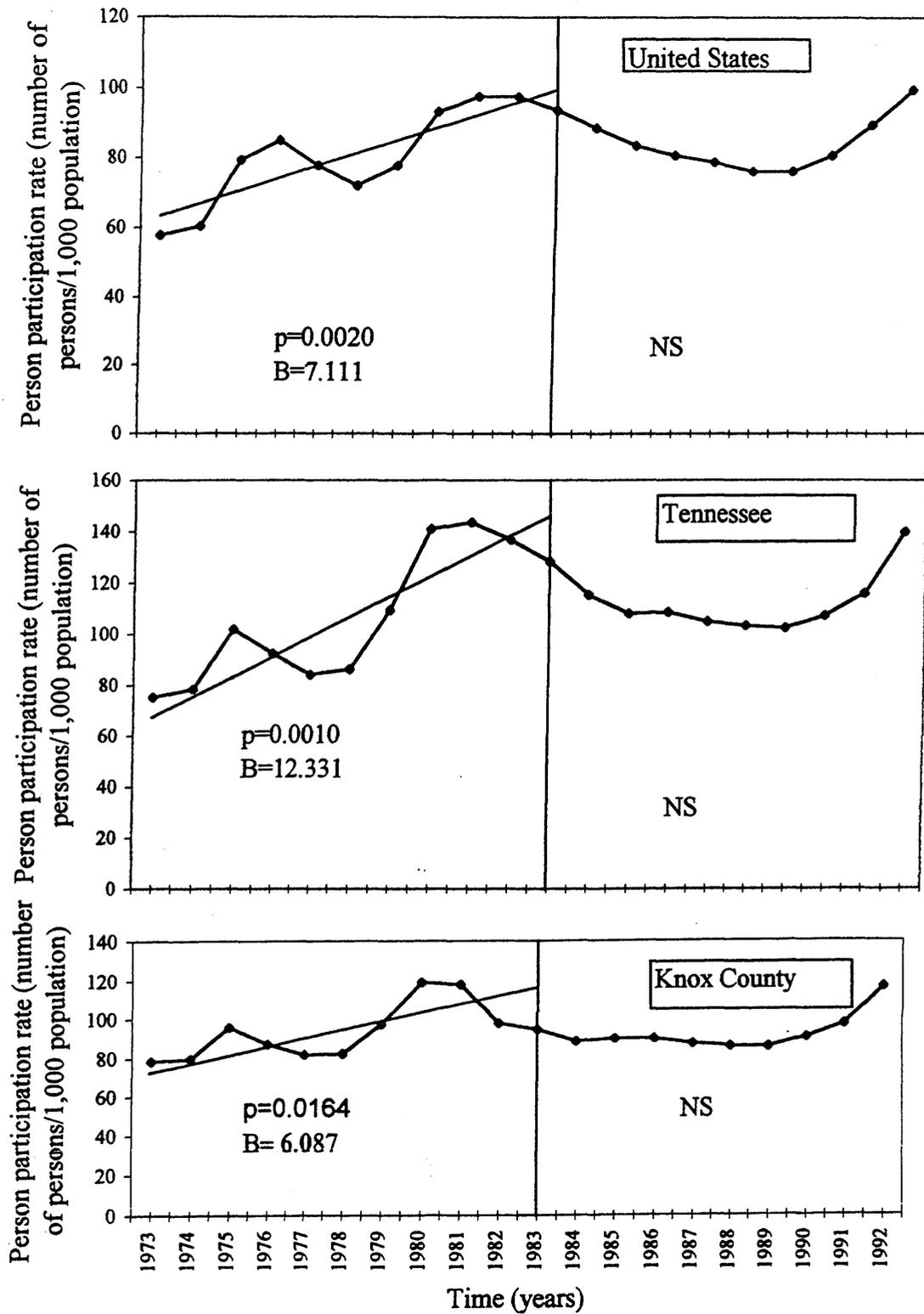


Figure 1. Rate of persons participating in Food Stamps in Knox County, Tennessee, and the United States, 1973-1992.

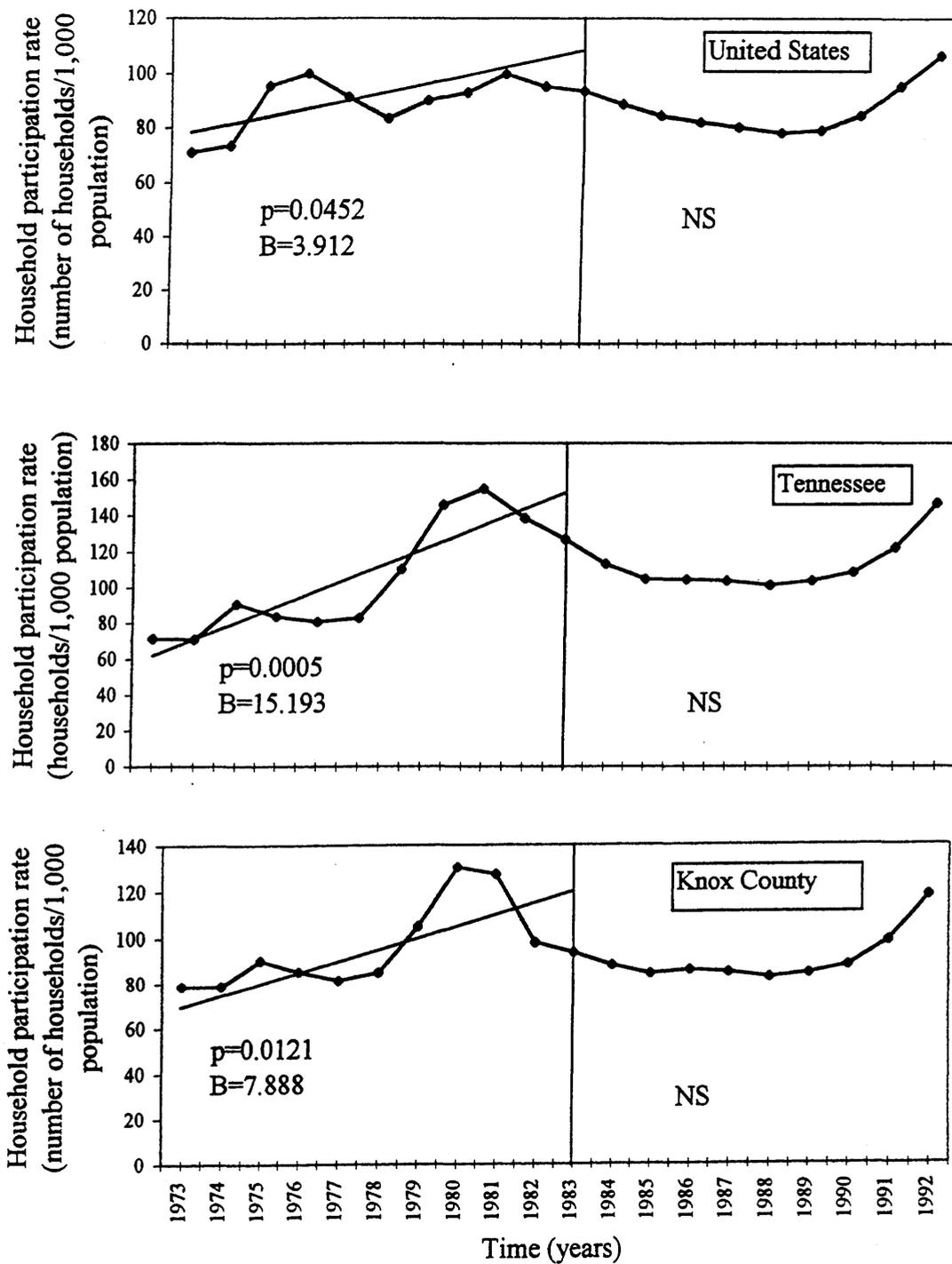


Figure 2. Household participation rate in Food Stamps in Knox County, Tennessee, and the United States, 1973-1992.

were similar between all jurisdictions at comparable times, the data provide evidence that influences on participation were the same and the local food system policy did not have an impact on household participation rates in Food Stamps.

### ***Summer Feeding Program Rates***

**Rate of total number of meals served.** The rate of total meals served per 1,000 population in the Summer Feeding Program for Children in Knox County, Tennessee and the United States is presented by year 1977 - 1992 in Figure 3. Locally, both during Time 1 and Time 2, the rate of total meals served was not able to be described as linear. However, the local trends were different compared to trends in participation in Tennessee and the United States. At the state and national levels there were decreasing linear trends in Time 1. At the state level in Time 2 the trend was not able to be described as linear. At the national level the trend was increasing linearly in Time 2. Therefore, these data show that the influences on participation were similar for Time 1 and Time 2 in Knox County. Although there were differences in participation between Knox County compared to the state and the United States, the lack of differences seen between Time 1 and Time 2 locally make it difficult to determine that the food system policy clearly had an impact.

**Average daily attendance rate.** The average daily attendance rate in the Summer Feeding Program for Children in Knox County, Tennessee, and the United States from

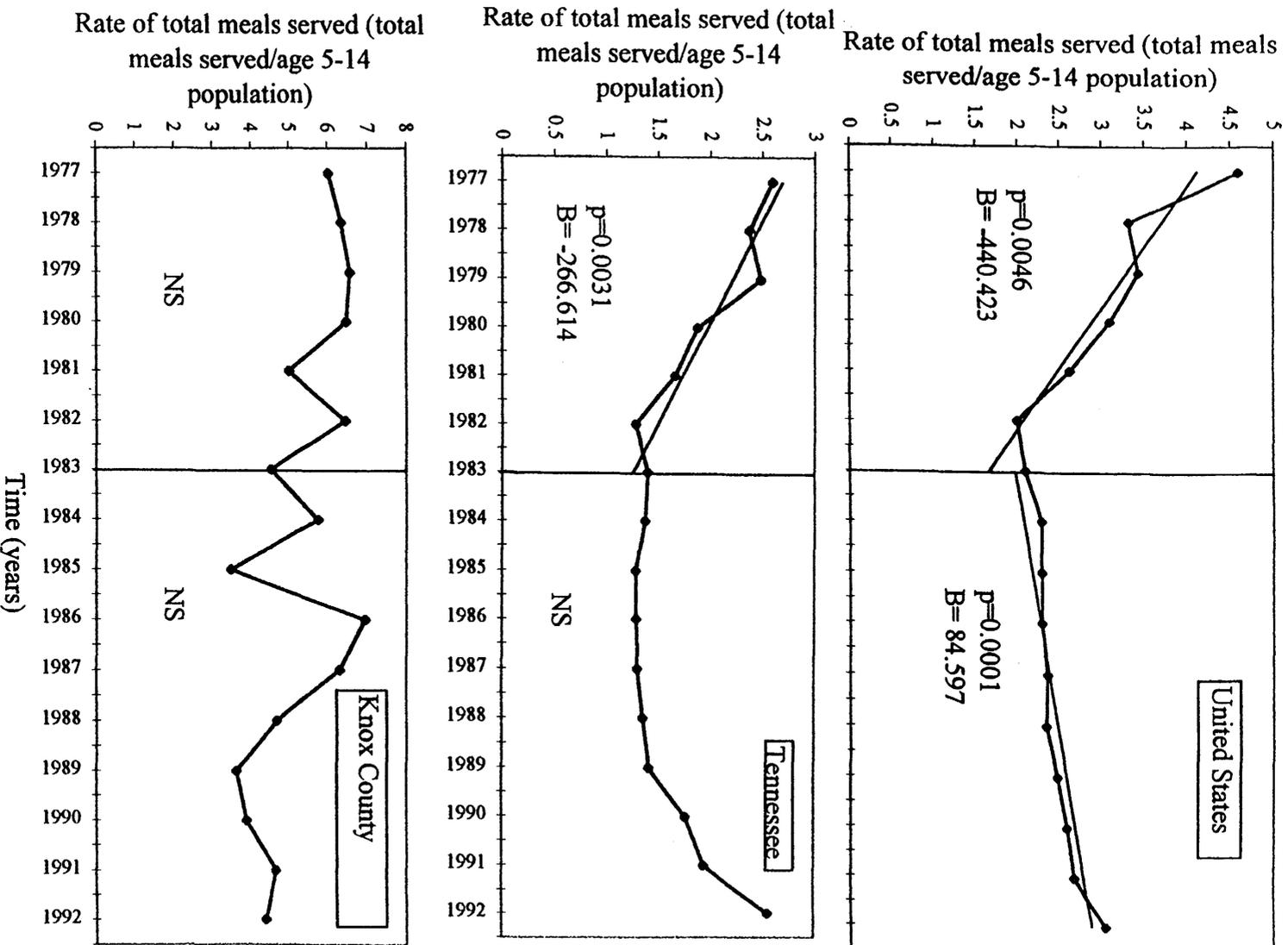


Figure 3. Rate of total meals served in Summer Feeding Program for Children in Knox County, Tennessee, and the United States, 1977 - 1992.

1977 - 1992 is shown in Figure 4. As was shown for meal participation rate, locally, during Time 1 and Time 2, the rate of total meals served was not able to be described as linear. However, the local trends were different compared to trends in participation in Tennessee and the United States. At the state level there was a clear decreasing linear trend in Time 1 and increasing linear trend in Time 2. At the national level in Time 1 the rate was not able to be described and in Time 2 it linearly increased.

Therefore, these data show that the influences on attendance were similar for Time 1 and Time 2 in Knox County. Although there were differences in attendance rates between Knoxville compared to the state and the United States, these lack of differences seen in Time 1 and Time 2 locally make it difficult to determine that there was an impact.

#### ***Senior Nutrition Program Rates - Congregate and Delivered Meals.***

**Rate of total number of meals served.** The rate of total number of congregate and delivered meals served is presented by year for 1974 -1992 for Knox County, Tennessee, and the United States in Figure 5. Locally, both during Time 1 and Time 2, the trends were not able to be described as linear. However, the local trends were different compared to trends in participation in Tennessee and the United States. At the state and national levels there were increasing linear trends in Time 1. At the state level in Time 2 this trend changed to a decreasing linear trend. At the national level the trend in Time 2 was not able to be described.

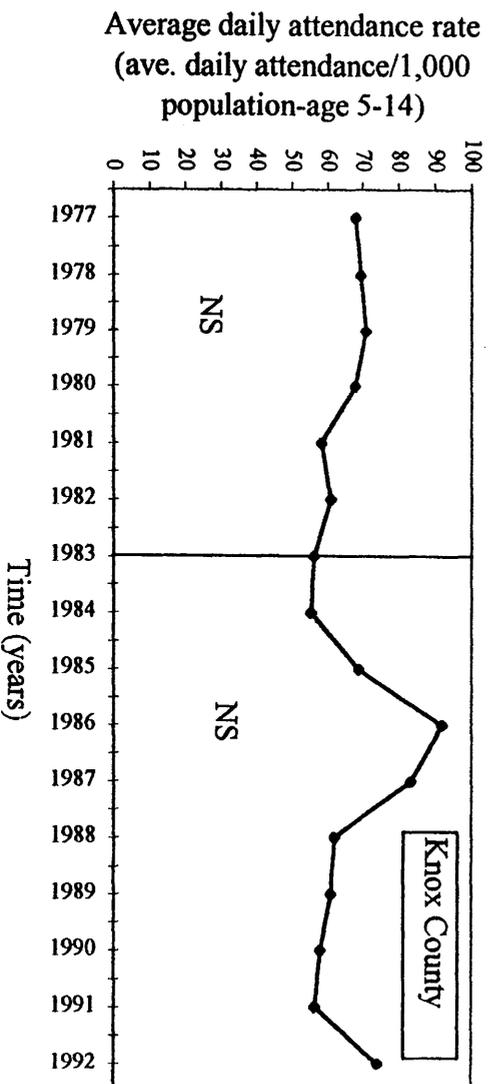
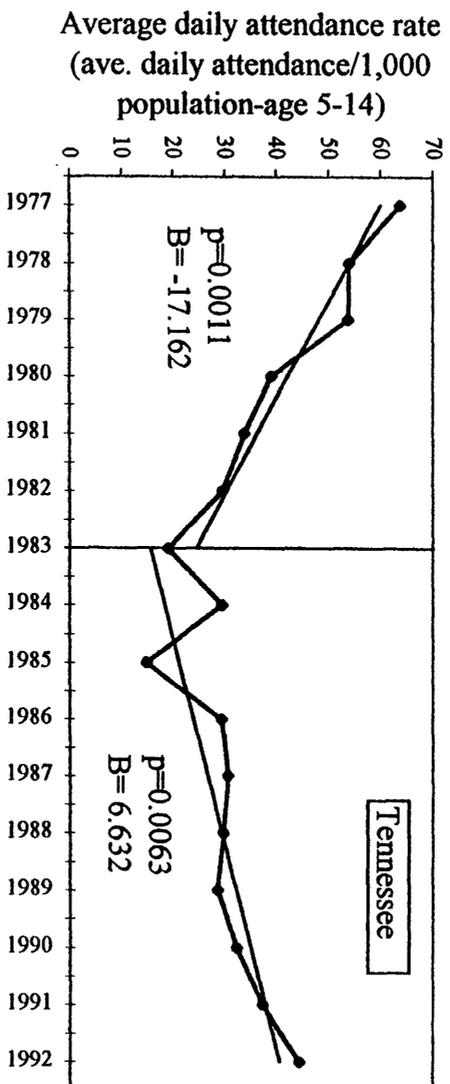
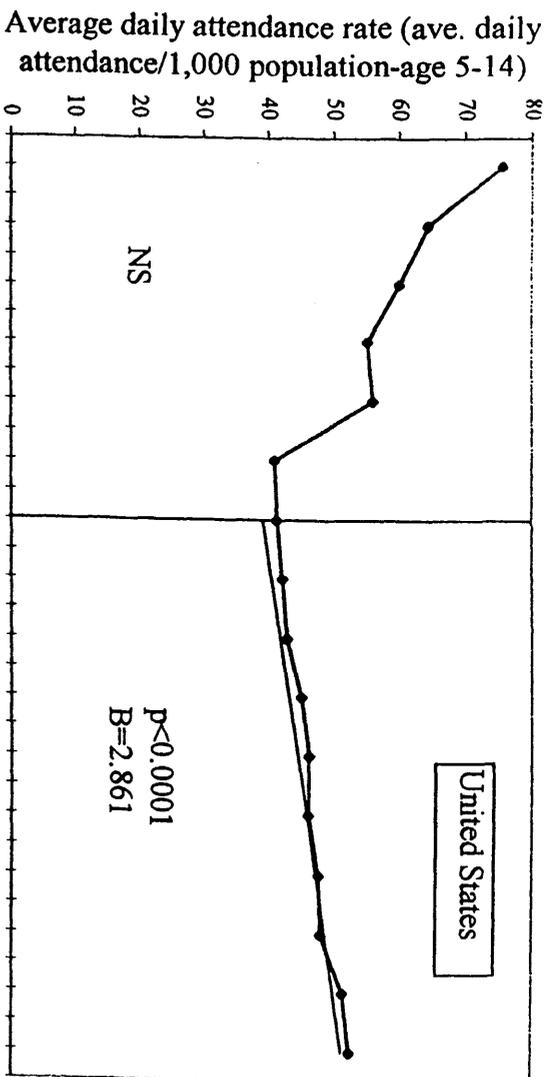


Figure 4. Average daily attendance rate in the Summer Feeding Program for Children in Knox County, Tennessee, and the United States, 1977 - 1992.

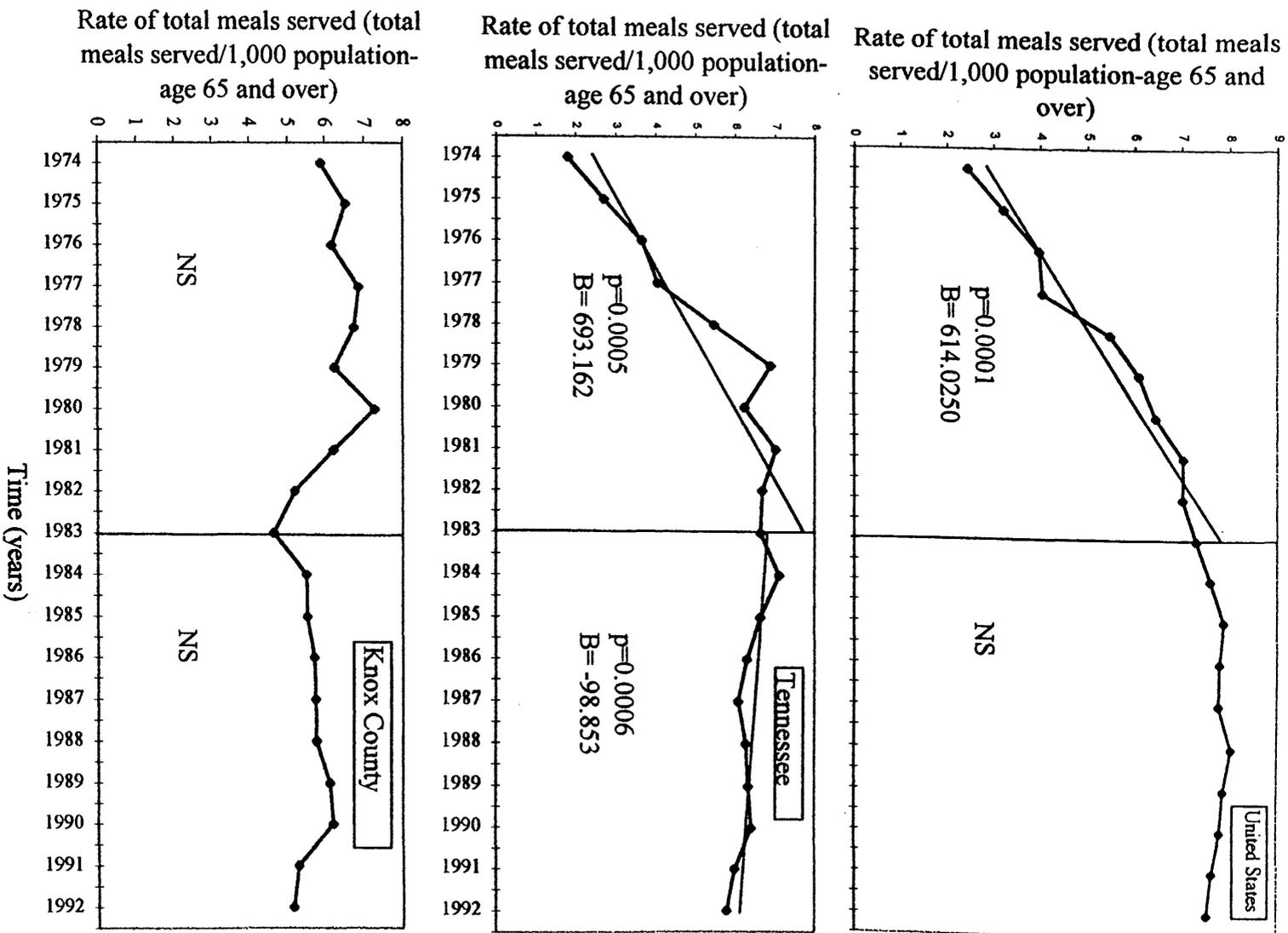


Figure 5. Rate of total meals served in Senior Nutrition Program in Knox County, Tennessee, and the United States, 1974 - 1992.

Therefore, these data show that the influences on participation were similar for Time 1 and Time 2 in Knox County and this suggests there was no impact on participation by the food system policy. When trends were compared to the control jurisdictions, there were differences observed in participation between Knox County compared to the State of Tennessee and the United States. The lack of differences seen between Time 1 and Time 2 locally again make it difficult to conclude that the food system policy impacted participation, although something appears to have been happening locally that was different from the control jurisdictions.

#### **Analysis of Trends for Three Federal Food Assistance Programs: Comparing Local, State, and National Trends by Total Participation.**

##### ***Food Stamps***

**Number of persons participating.** The number of persons participating in Food Stamps in Knox County, Tennessee, and the United States is presented by year (1973 - 1992) in Figure 6. The trends in participation in Food Stamps changed in Time 2 compared to Time 1. During Time 1, 1973 to 1982, local participation linearly increased. Participation in Time 2, 1983 to 1992, could not be described as linear, and therefore, participation trends differed in Time 1 and Time 2.

Participation in Food Stamps in Tennessee and the United States showed trends similar to those in Knox County, with an increasing linear trend in Time 1 and a different

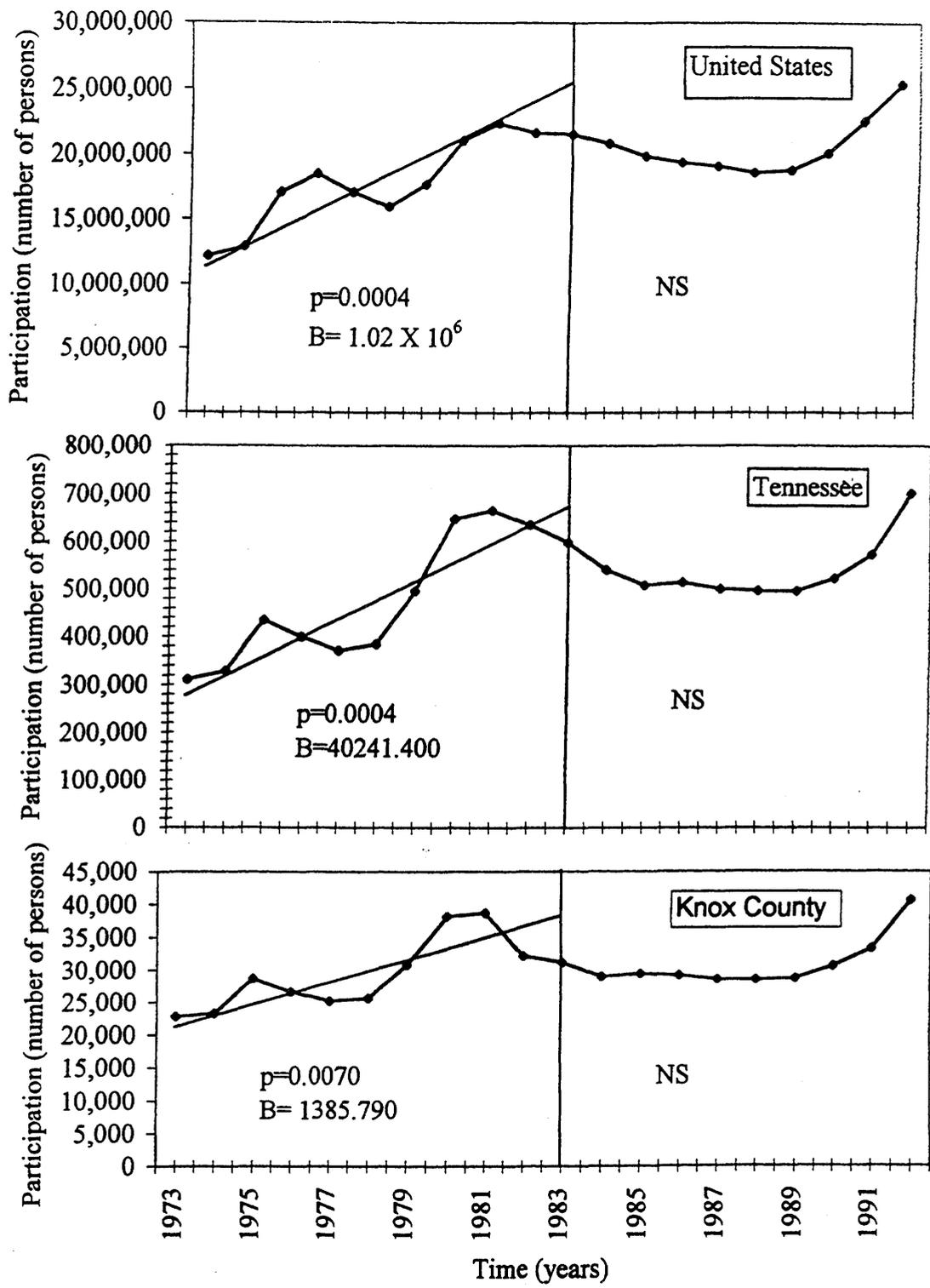


Figure 6. Total number of persons participating in Food Stamps in Knox County, Tennessee, and the United States, 1973 - 1992.

non-linear trend in Time 2. For all jurisdictions in Time 1 the same increasing linear trend was seen, but the trend changed in Time 2 and could not be described as linear. Because the trends were similar between jurisdictions, these data show that influences on participation were similar and the local food system policy did not have an impact on participation in Food Stamps.

**Number of households participating.** When Food Stamp participation was analyzed by households, the results were the same as those for individual participation (Figure 7). All three jurisdictions showed the same trends in Time 1 and Time 2. In Time 1 the trends in participation linearly increased and the trends in Time 2 were not able to be described as linear. Therefore, because the trends were similar between all jurisdictions at comparable times, the data suggest that influences on participation were the same and the local food system policy did not have an impact on household participation in Food Stamps.

### ***Summer Feeding Program***

**Total number of meals served.** The total number of meals served in the Summer Feeding Program is presented by year from 1977 - 1992 for Knox County, Tennessee, and the United States in Figure 8. Locally, both during Time 1 and Time 2, total numbers of meals served were not able to be described as linear.

However, the local trends were different compared to trends in participation in

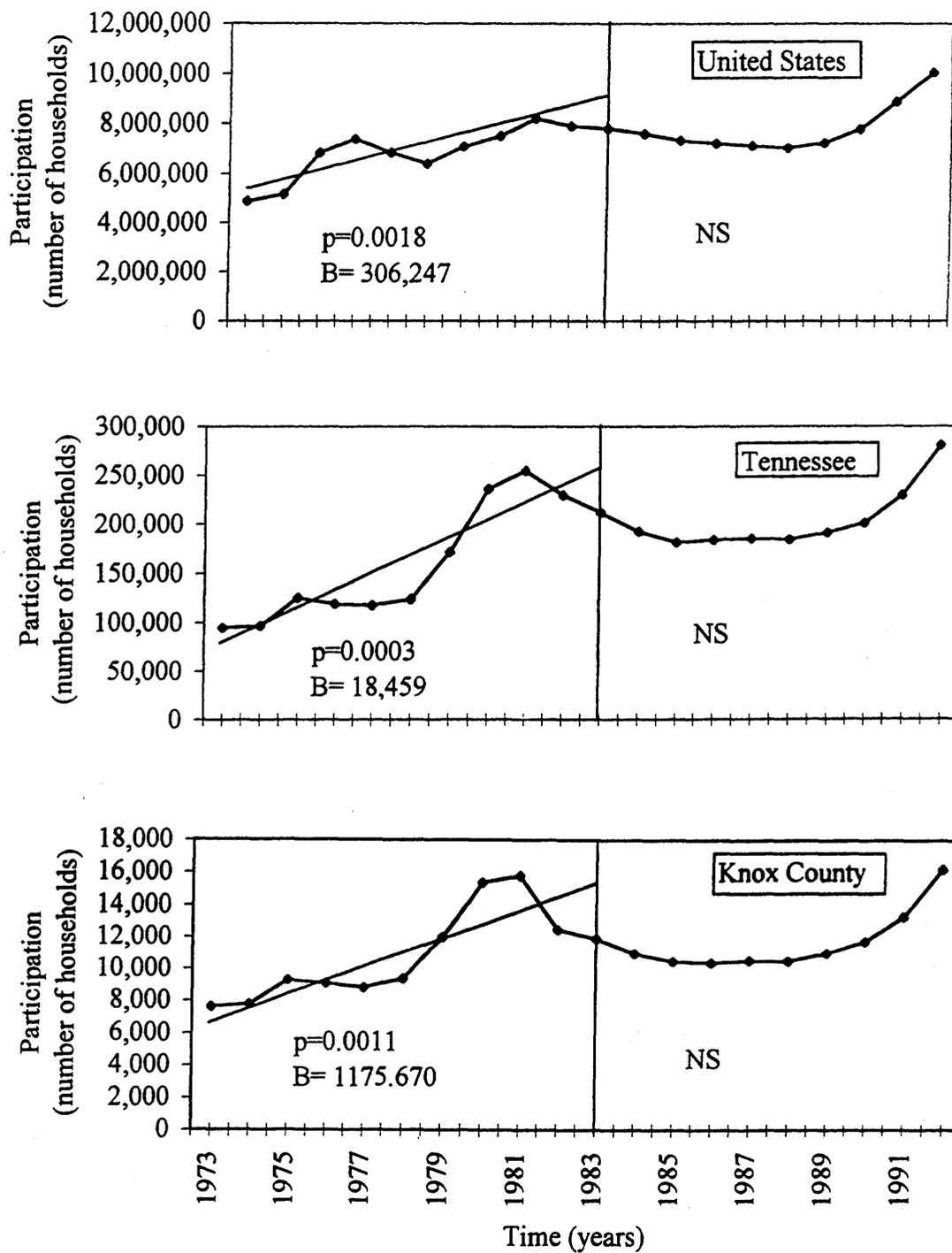


Figure 7. Total number of households participating in Food Stamps in Knox County, Tennessee, and the United States, 1973 - 1992.

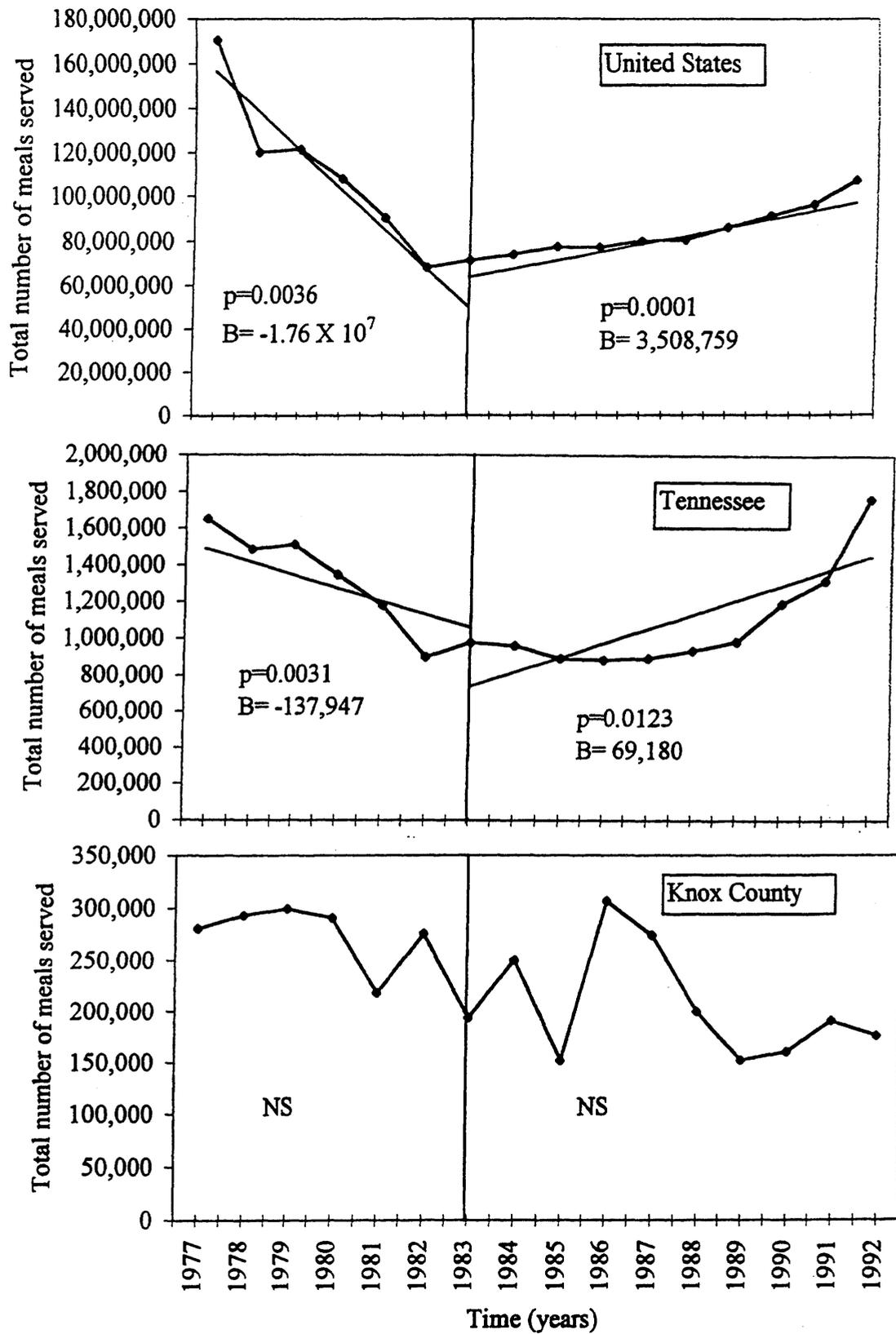


Figure 8. Total number of meals served in Summer Feeding Program for Children in Knox County, Tennessee, and the United States, 1977 - 1992.

Tennessee and the United States. At the state and national levels there were decreasing linear trends in Time 1 and increasing linear trends in Time 2. Therefore, these data show that the influences on participation were similar for Time 1 and Time 2 in Knox County. Although there were differences in participation between Knox County compared to the state and the United States, the lack of differences seen between Time 1 and Time 2 locally make it difficult to conclude any local food system policy impact.

**Average daily attendance.** Average daily attendance in the Summer Feeding Program in Knox County from 1977 - 1992 is shown in Figure 9. Local participation trends changed between Time 1 and Time 2. During Time 1 participation decreased linearly, while during Time 2 participation was not able to be described.

Like the local level, at both the state and national levels, participation trends decreased linearly in Time 1. However, unlike the local level, in Time 2 the trends in participation changed at the state and national levels and increased linearly. Clearly, this shows that trends were different between the local level and the state and national levels. This provides evidence that the food system policy did have an impact on the average daily attendance in the Summer Feeding Program for Children, although the direction of this influence is unclear.

### ***Senior Nutrition Program - Congregate and Delivered Meals***

**Total number of meals served.** The total number of congregate and delivered meals served is presented by year 1974 - 1992 for Knox County in Figure 10. Local

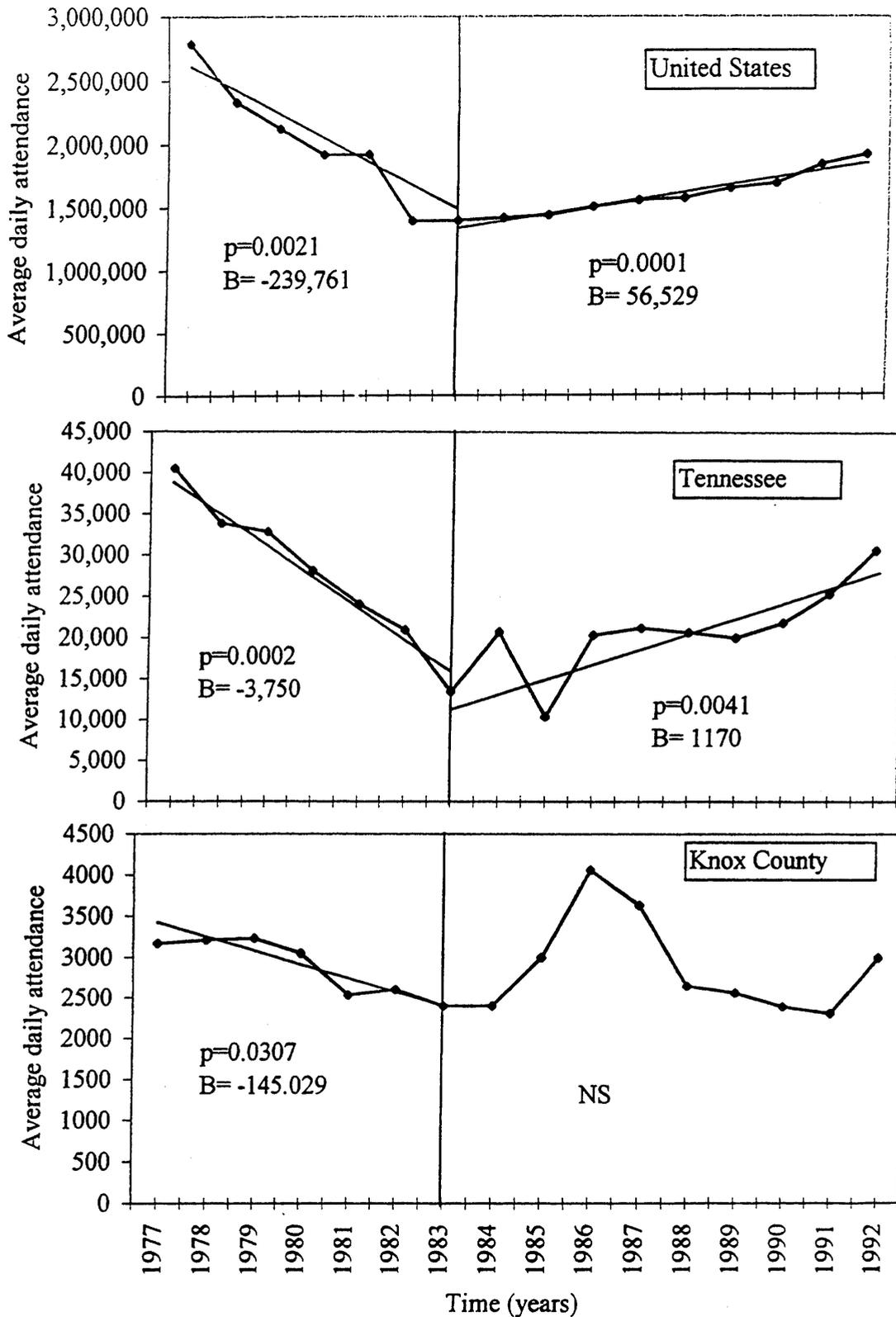


Figure 9. Average daily attendance in Summer Feeding Program for Children in Knox County, Tennessee, and the United States, 1977 - 1992.

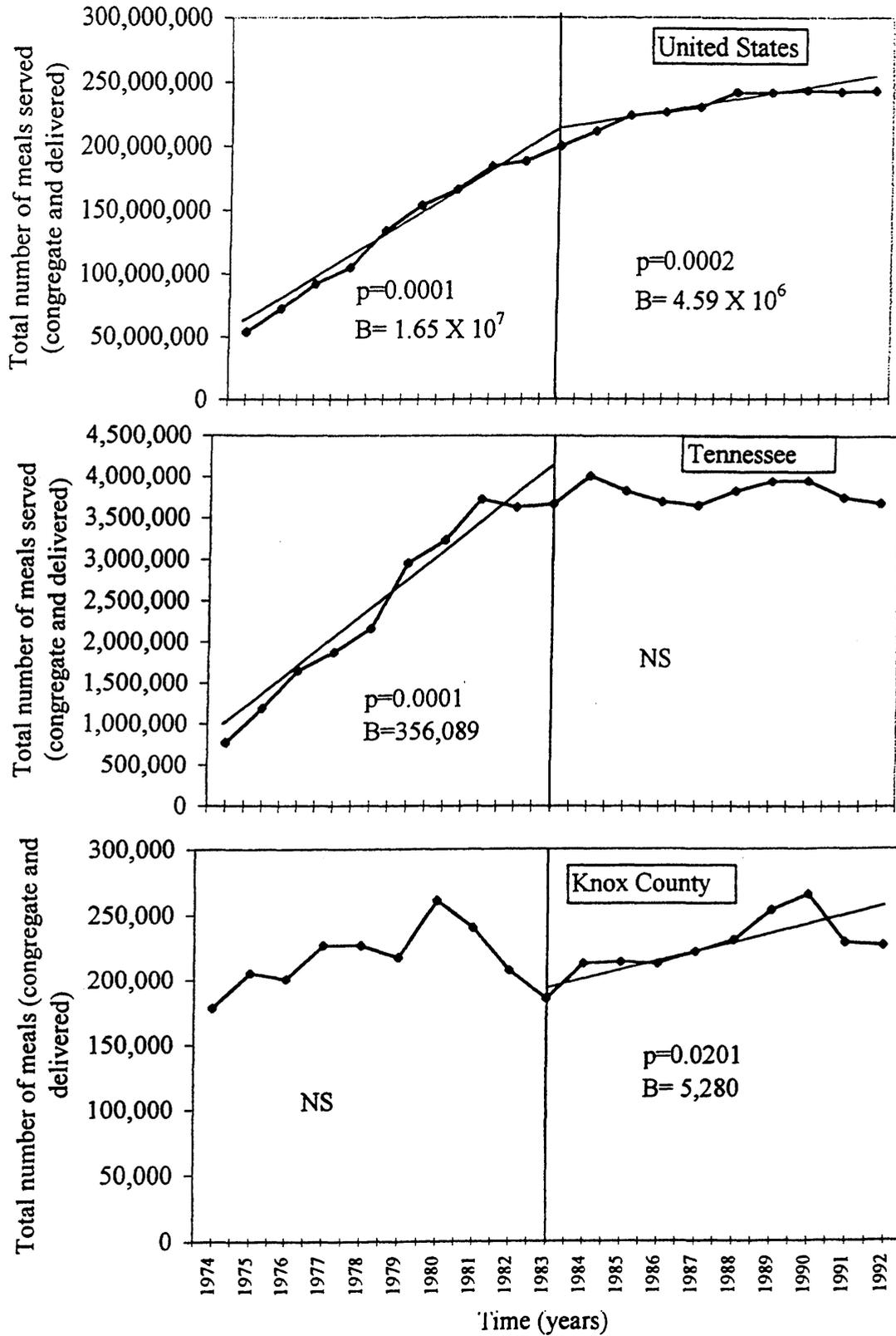


Figure 10. Total number of congregate and delivered meals served in Senior Nutrition Program in Knox County, Tennessee, and the United States, 1974 - 1992.

participation trends changed in Time 1 compared to Time 2. During Time 1 participation could not be described as linear, while during Time 2 participation increased linearly. Unlike the local level, in Tennessee during Time 1 the total number of meals served increased linearly, and then during Time 2 the number was not able to be described as linear. At the national level, the participation trend increased linearly in Time 1 and continued to increase linearly in Time 2, unlike the state level, but like the local level. Trends in the total number of meals served were clearly different between Knox County, Tennessee, and the United States from 1974 to 1992. Therefore, these data show that there were differences in participation trends and it would be reasonable to assume the food system policy had an impact.

## CHAPTER 4

### Discussion

This study provided evidence that the Knoxville food system policy, guided by the Food Policy Council, did not have an impact on changing participation in the Food Stamp Program, the Summer Feeding Program for Children, or the Senior Nutrition Program when participation was expressed as rates. However, when the data were expressed as simply participation, then differences were seen. An analysis of the similarities and differences between trends in each jurisdiction of each program and between programs offers an explanation of why these results were found.

#### **Comparison of Trends for the Food Stamp, Senior Nutrition, and Summer Feeding Program for Children**

The trends were the similar for the number of individuals and households participating in the Food Stamp Program in the three jurisdictions whether or not the data were expressed as rates or total participation. This provides strong evidence that the food system policy did not have an impact on participation locally. Participation in Time 1 in all jurisdictions increased linearly, but could not be described as linear in Time 2. Expressing participation as a rate rather than as absolute participation did not result in changes in how the trend was described, linear or not able to be described as linear

In comparison to the Food Stamp Program, the food system policy appeared to have an impact in the Senior Nutrition Program when absolute participation was used, but not when rates were used. The trend in the total number of meals served in the

Senior Nutrition Program in Knox County in Time 1 showed that the trend could not be described as linear, but that this trend changed to a positive linear trend in Time 2. In both control jurisdictions participation increased linearly in Time 1. In Time 2, however, the state trend became variable while the national trend continued to increase linearly. Although the trend in Time 1 at the local level was not linear, from 1980 to 1983, the period just prior to initiation of the food system policy, participation was decreasing. This developing trend reversed after initiation of the food system policy.

The food system policy appeared to have no impact on trends in the total number of meals served whether expressed as rates or meal number in the Summer Feeding Program for Children. However, local trends were different for average daily attendance when expressed as number of participants. This is somewhat confusing since it would be expected that the trends would be the same, and therefore, that as attendance changed, the number of meals served would change in a similar manner. However, this difference may reflect differences in how the total number of meals served per day is calculated. During certain years only breakfast and lunch were served, while in other years breakfast, lunch, and a snack were served. The state and national trends for average daily attendance showed decreasing linear trends in Time 1 and increasing linear trends in Time 2. At the local level the average daily attendance decreased linearly in Time 1 and then could not be described in Time 2. For a period of time in Time 1, from 1986 to 1991, the trend at the local level appeared to decrease while the Time 2 trend at the state and national level showed a clearly linear positive trend.

Perhaps the type of food assistance program, how it was funded and its eligibility guidelines could help to explain at the local level the lack of impact seen on participation in the Food Stamp Program, positive reversal of trend in the Senior Nutrition Program, and change of trend in the Summer Feeding Program for Children. The Food Stamp Program is a federally funded entitlement program, while the Senior Nutrition Program and Summer Feeding Program for Children are discretionary funded programs. The term entitlement indicates that anyone who meets the eligibility guidelines for the program is guaranteed Food Stamps. However, participation in a discretionary funded program is limited by the amount of funding available to the program. Consequently, although some eligible people may want to participate in the program, financial resources at times may be inadequate to provide the service to all eligible persons.

In this research it would appear that any local efforts to increase local Food Stamp participation differentially by increasing funding was ineffective, because of the program's entitlement status. Changes in funding or eligibility guidelines would occur at the national level and would affect all jurisdictions in a similar manner. Therefore, differences in trends across jurisdictions would only be likely if the percent of eligible people in the population was substantially different between jurisdictions or if attempts were made to increase the number of eligible persons enrolling in the program. A study conducted for the Food Stamp Program indicated that many eligible people do not choose to participate due to the lack of program acceptance (21). Therefore, the lack of food system policy impact on local participation in the Food Stamp Program seen in this

research could be due to the program's overall limited social acceptability and lack of or ineffective local efforts to change this perception. Limited social acceptability has not been shown in the Senior Nutrition Program or Summer Feeding Program for Children (22-23).

Although state participation in the Senior Nutrition Program did not maintain the same increasing trend as the United States, local participation increased throughout Time 2 until 1991. At that time the number of persons served decreased due to limited financial resources. According to the local director of the Senior Nutrition Program (24), in 1991 the program instituted a waiting list for home-delivered meals, because funding was inadequate to serve those in need. It is possible that efforts by the Council in the late 1980's could have been responsible for the increasing local trends seen in Time 2, but data are not available from this study to confirm this explanation. A better understanding of how the Council functioned would provide more information to understand these results.

Unlike the Food Stamp Program, the Summer Feeding Program for Children and the Senior Nutrition Program are both discretionary funded programs that compete for funds. It is possible that efforts by the Council to improve participation by increasing funding for the Senior Nutrition Program or other discretionary funded programs could have resulted in decreased funding for the Summer Feeding Program, which in turn would have resulted in decreased participation. Because funding limits directly impact the number who can be served by discretionary funded programs, any efforts to increase

services to one program could result in decreases in funding and services to another program. It is likely that efforts to increase local participation in discretionary programs could be accomplished by increasing funding, changing program eligibility guidelines, and increasing the percent of eligible persons served. Unlike discretionary programs, local efforts to increase participation in entitlement programs, like the Food Stamp Program, would likely impact all jurisdictions the same except for changing the percent of eligible persons served. The Council's activities regarding each of the programs would need to be analyzed to address these hypotheses.

### *Rates versus simple trends*

When rates were used instead of absolute participation, the impacts seen in the Summer Feeding Program for Children and Senior Nutrition Program were not observed. Expressing participation as rates with total population as the denominator added another variable to the analysis. Expressing Food Stamp participation as rates did not result in changes in the description of the trends. The trends remained the same when reviewed graphically, but the standard error of the estimates and coefficients of determination were less powerful. Adding more variability to the local trends in the rates of average daily attendance in the Summer Feeding Program for Children and total meals served in the Senior Nutrition Program removed the linear trend. This same effect was seen for the rate of total meals served in the Summer Feeding Program at the state level, where the rate approached significant at  $p=0.0506$ . The observed differences for rates and absolute

participation could be partially due to the large population denominators used to calculate rates in comparison to the small participation numerators diminishing the linear effect. This may make the rates used in this study less meaningful, since the available data were only for the total age-specific population and not the total age-specific eligible population. Understanding how these trends can be compared and contrasted and what measures to use is open to discussion and interpretation. A better measure to use in the denominator would be to use the number eligible for the program. This number is smaller and reflective of the population who could participate. Perhaps using simple trends and rates expressed with the number of eligible persons to describe the trends could offer a more representative measure for evaluating impacts. Time needed for calculating these measures should be considered, because determining eligibility is a complex task and changing national policies can influence eligibility (25-26). Assistance from program personnel is often necessary. Councils should consider offering simple tracking software or other capabilities to these programs to assist in analyzing this information.

This study is only one aspect of community food security. Other measures of community food security need to be developed and analyzed. Efforts to understand community food security from a food system model are necessary.

## **CHAPTER 5**

### **Limitations**

#### **Local Jurisdiction and Participation**

According to the City Council resolution establishing the policy (1), the Food Policy Council was responsible only to the city of Knoxville. Food assistance participation data, however, were only available for Knox County. Although this posed a study limitation, county data were still considered useful for analysis. Demographically, although approximately 50% of the Knox County population lived in Knoxville, the majority (69%) of the population with incomes less than \$15,000 lived in the city (27). The efforts by the Food Policy Council to impact participation in food assistance programs would have affected these households disproportionately since low-income status is an eligibility criterion for most of the programs. Furthermore, although political boundaries separate the city from the county, geographic and other potential food system boundaries are minimal. Therefore, although the data were not specific for the city, it was assumed they were representative of local participation.

The use of the total age-specific population to express rates in this study has two limitations: 1) the number is so large it appears to diminish the effects seen at the local level when absolute participation was used; and 2) it does not represent the eligible population. For example, in the Summer Feeding Program for Children the total 5 - 14 year old population is not the eligible population for the program. The number of eligible children is based on whether their family income is less than 185% of poverty

(28). Therefore, total population is not the most valid representation of the population that are at risk and may be in need of the program. However, the eligible population is found in the total population and this provides an alternative when eligibility information is unavailable.

Another issue is the use of simple linear regression used in this study. Although this provides a description of gross impact, using arima modeling to analyze these frequently changing trends would be preferred (29). However, this analysis requires 30 data points (30) and, unfortunately, this quantity of data was not available for this retrospective study. This again supports the importance of local food system policy councils acquiring not only the most appropriate data to analyze impact, but also adequate data.

## CHAPTER 6

### Conclusions

When rates were used to analyze impact, results suggested that the Knoxville food system policy did not have an impact on changing participation in the Food Stamp Program, Summer Feeding Program for Children, or Senior Nutrition Program.

However, when absolute participation was analyzed, results provided evidence there was an impact on increasing in participation in the Senior Nutrition Program, an impact that could not be described as linear on average daily attendance in the Summer Feeding Program for Children, and no impact on the Food Stamp Program. The food system policy appeared to impact access to food as measured by increasing participation in one program: the Senior Nutrition Program. An analysis of the Knoxville Food Policy Council's processes and activities could help to describe the results of the impact.

Quantitative measures using absolute participation and participation rates utilizing the eligible population are recommended. However, without sufficient access to the number of people in the eligible population, the Census Bureau offers a great deal of information about population that could be used. Food policy councils and other groups wanting to evaluate impact should consider using quantitative measures of participation in federal food programs because this is a means of accessing food. However, the availability and accessibility of federal food assistance programs and access to food is only one aspect of community food security. Other measures of community food security need to be considered and defined.

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## Appendices

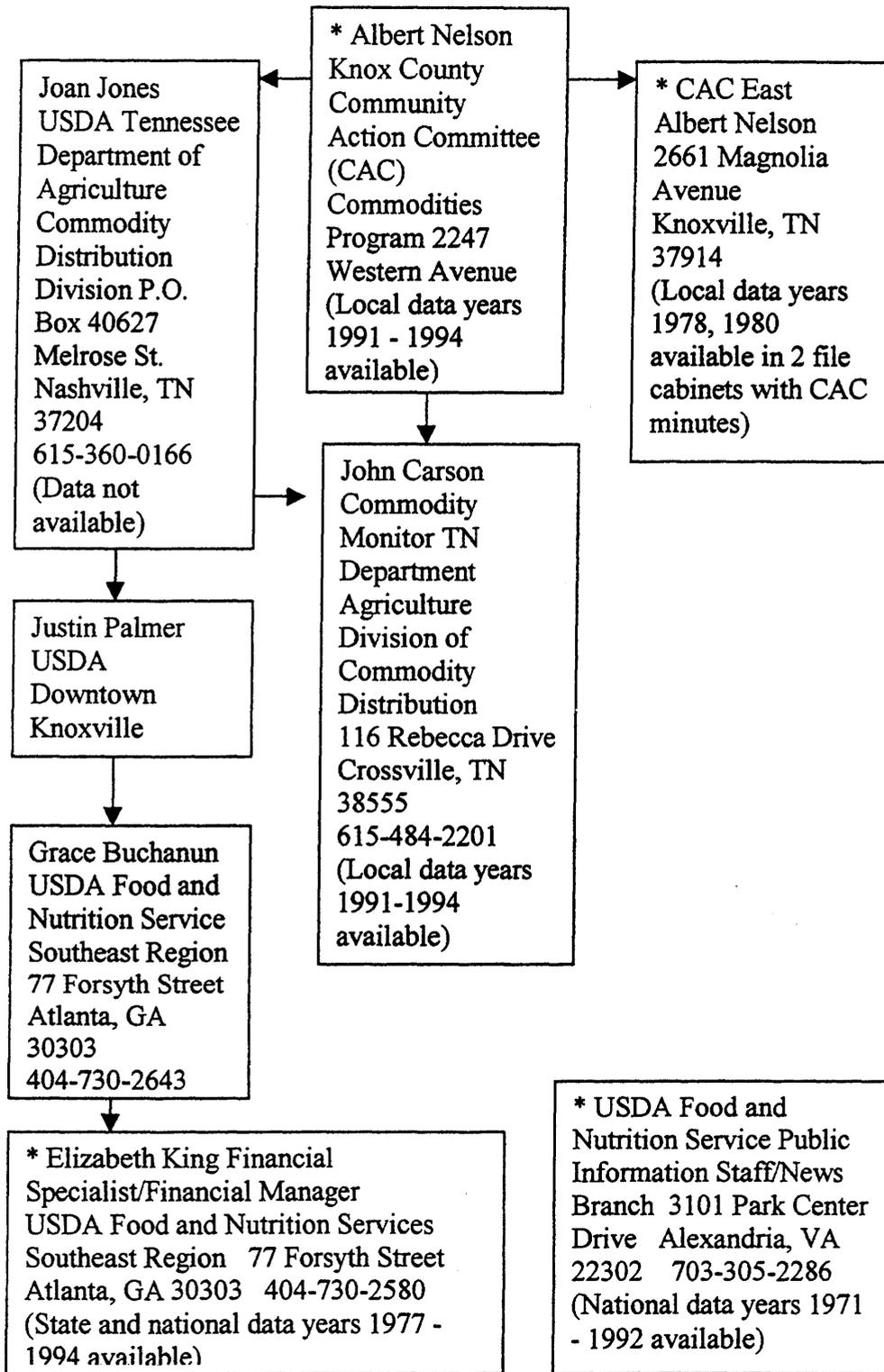
### Appendix A

Sources for data on food assistance programs are included in this appendix. Attempts to obtain data are illustrated for each food assistance program in the study. An asterisk (\*) indicates the source for the participation data. All persons or organizations contacted did not have participation data and identified other contacts for referral.

The programs include:

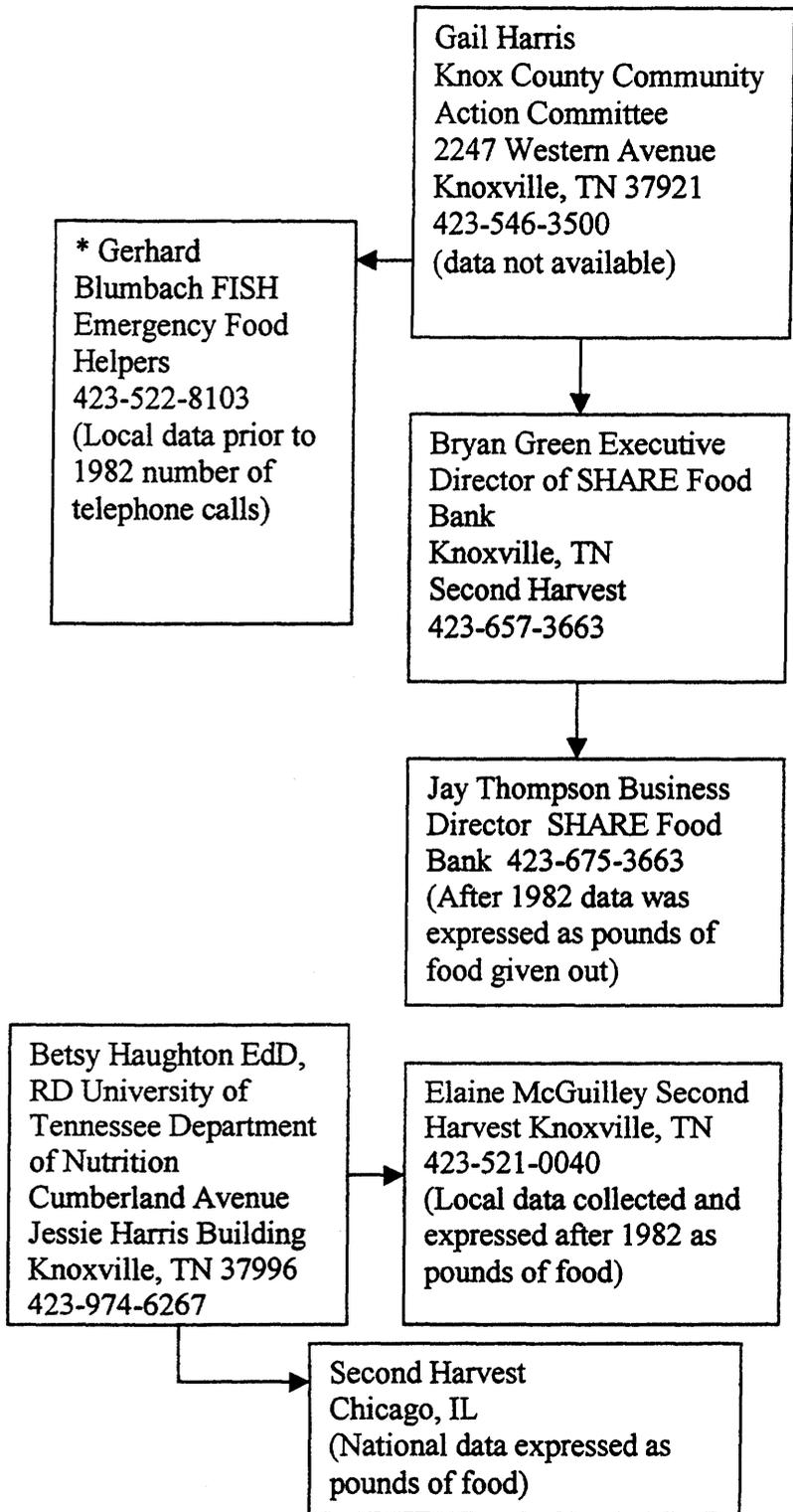
- A.1 Commodities Supplemental Food Program
- A.2 Emergency Food Assistance
- A.3 Food Stamps
- A.4 School Lunch and Breakfast
- A.5 Senior Nutrition
- A.6 Summer Feeding Program for Children
- A.7 Supplemental Feeding Program for Women, Infants, and Children

A.1 Commodities Supplemental Food Program - Local, State, and National



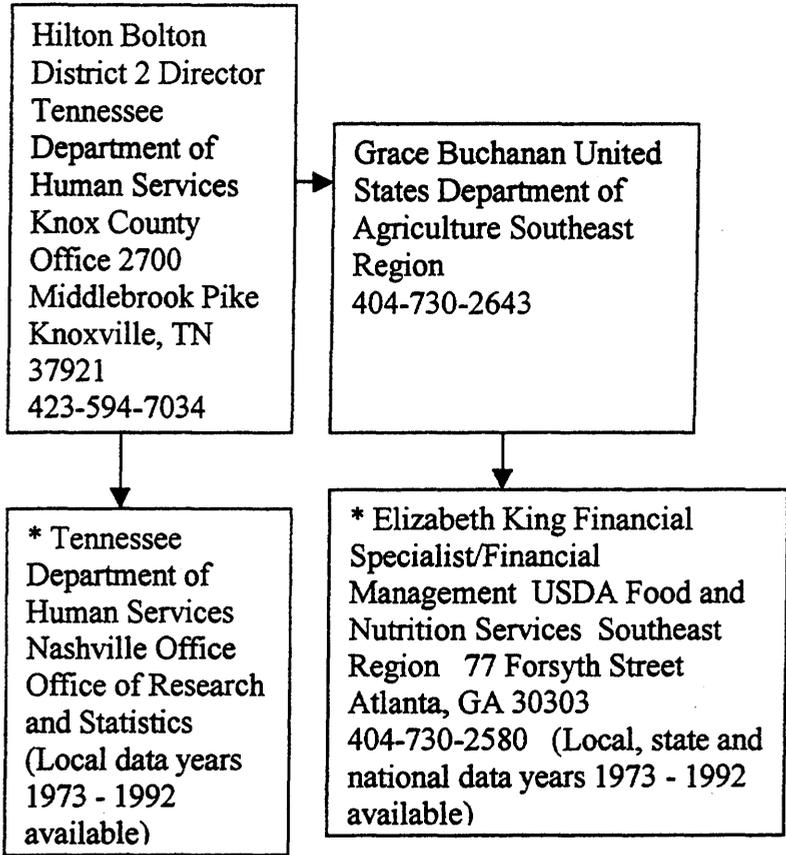
\* organization/person with data

A.2 Emergency Food Assistance - Local, State and National



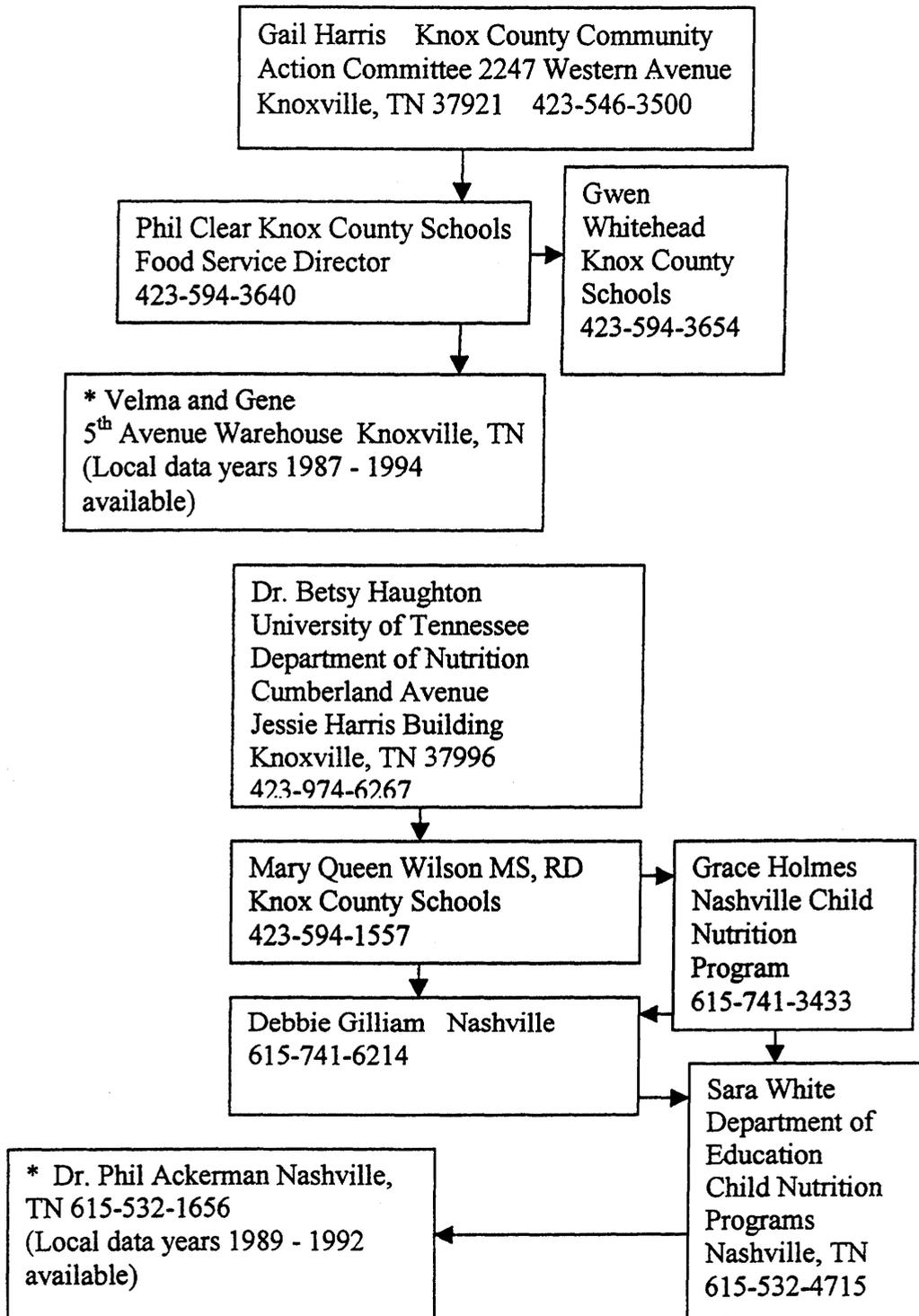
\* organization/person with data

A.3 Food Stamps - Local, State, and National



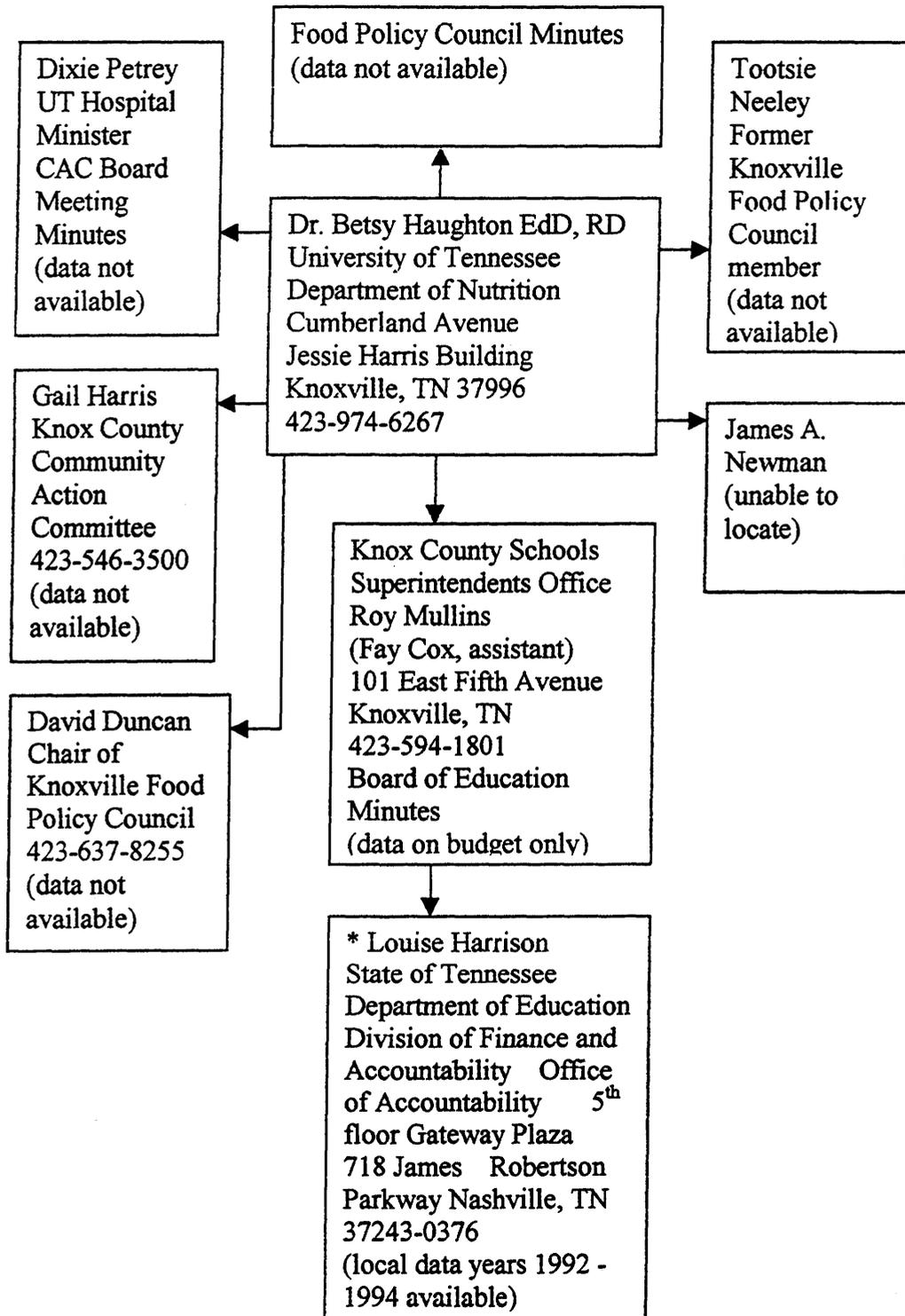
\* organization/person with data

A.4 School Lunch and Breakfast - Local, State and National



\* organization/person with data

A.4 School Lunch and Breakfast Continued



\* organization/person with data

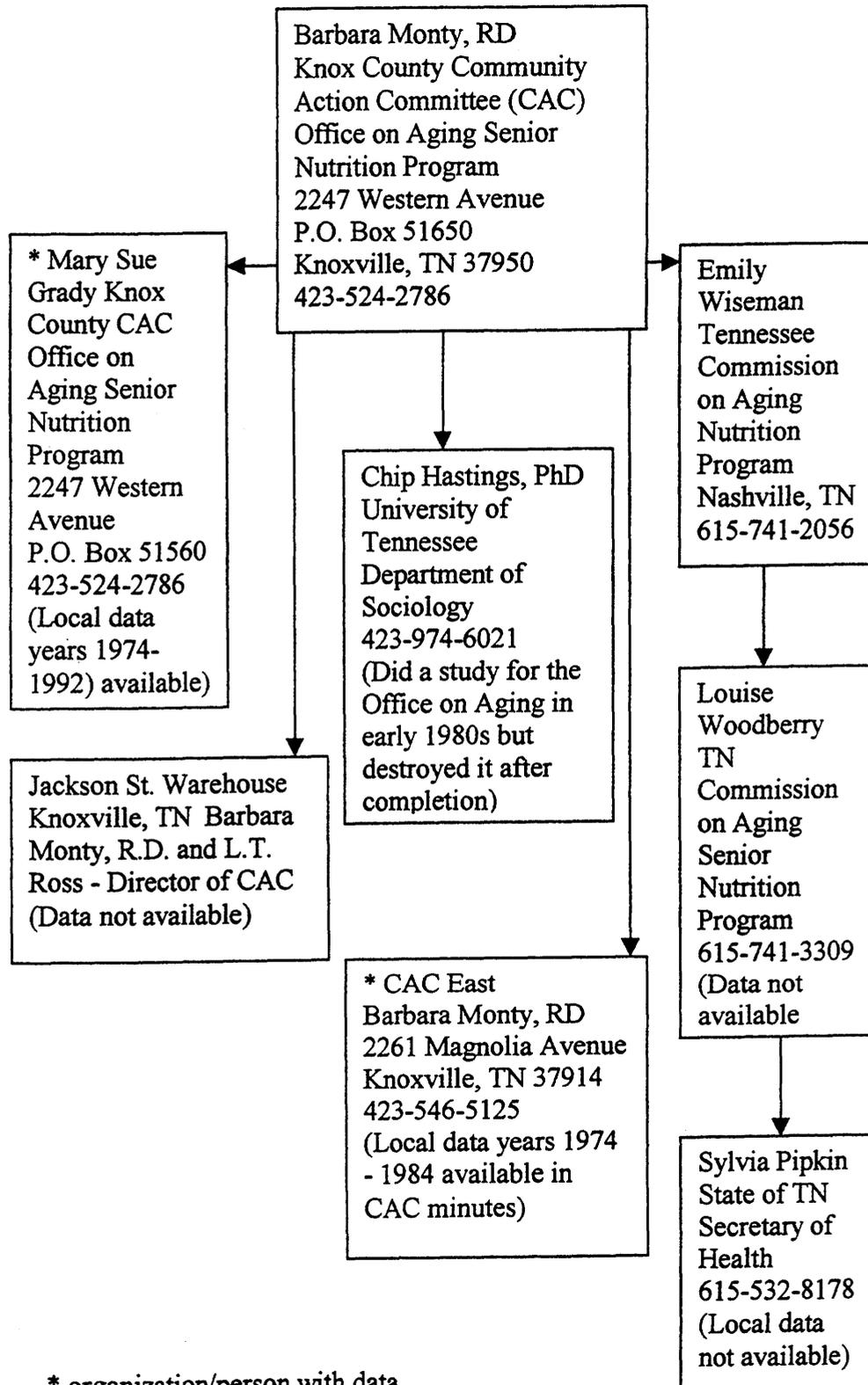
A.4 School Lunch and Breakfast Continued

\* Elizabeth King  
Financial  
Specialist/Financial  
Management  
USDA Food and Nutrition  
Services  
Southeast Region  
77 Forsyth Street  
Atlanta, GA 30303  
404-730-2580  
(State and national data  
years 1973 - 1992  
available)

\* USDA Food and Nutrition  
Services  
Public Information  
Staff/News Branch  
3101 Park Center Drive  
Alexandria, VA 22303  
703-305-2286  
(National data years 1973 - 1992  
available)

\* organization/person with data

A.5 Senior Nutrition Program - Local



\* organization/person with data

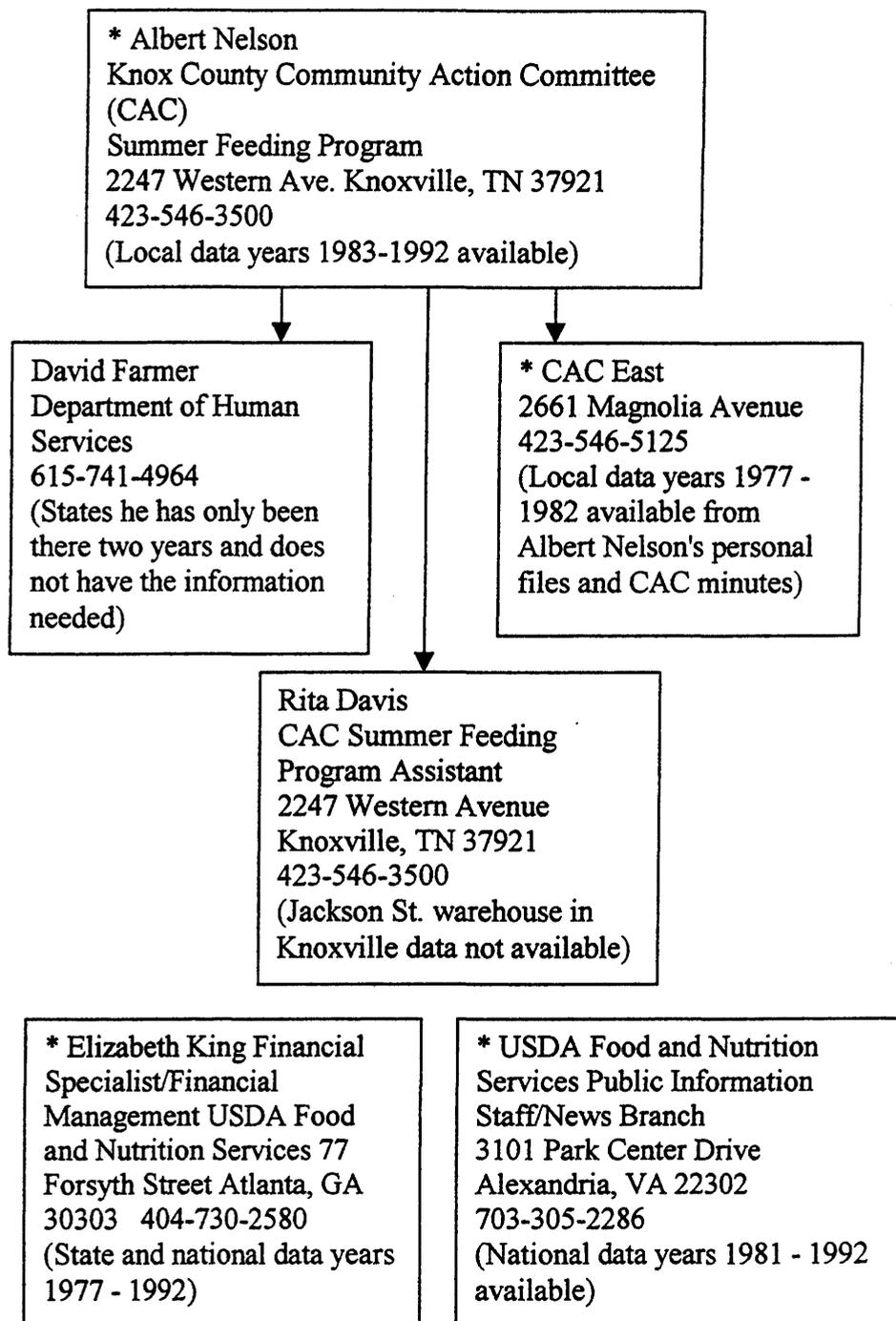
A.5 Senior Nutrition Program - State and National

\* Elizabeth King Financial  
Specialist/Financial  
Management USDA Food  
and Nutrition Services  
Southeast Region  
77 Forsyth Street  
Atlanta, GA 30303  
404-730-2580  
(State and national data  
year 1974 - 1992 available)

\* USDA Food and Nutrition  
Services Public Information  
Staff/News Branch  
3101 Park Center Drive  
Alexandria, VA 22302  
703-305-2286  
(National data years 1977 - 1992  
available)

\* organization/person with data

A. 6 Summer Feeding Program for Children - Local, State and National



\* organization/person with data

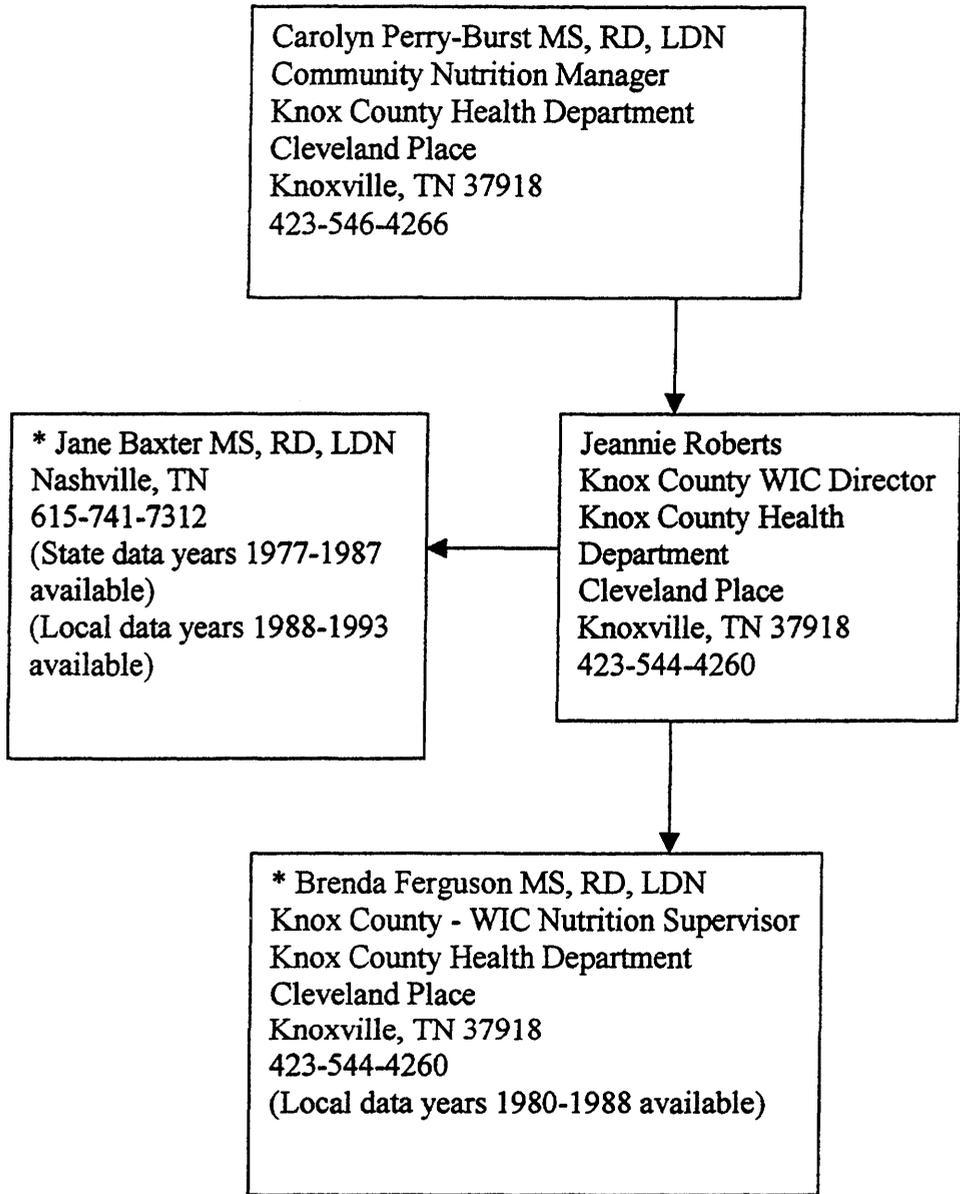
A. 7 Supplemental Feeding Program for Women, Infants, and Children (WIC) -  
National Data

\* Elizabeth King  
Financial Specialist  
Financial Management  
USDA Food and Nutrition  
Services Southeast Region  
77 Forsyth St. Atlanta,  
GA 30303 404-730-2580  
(State and national data  
available)

\* USDA Food and  
Nutrition Services Public  
Information Staff/News  
Branch 3101 Park Center  
Drive Alexandria, VA  
22302 703-305-2286  
(National data available)

\* organization/person with data

A.7 Supplemental Feeding Program for Women, Infants and Children (WIC) -  
Local and State



\* organization/person with data

## Appendix B

### Statistical Analysis Programs

Statistical analysis programs SAS system used to analyze absolute participation and participation rates and to compare trends (SPSS).

SAS program used to analyze absolute participation:

```
options ls=72;
data a;
input part years @@;
list;
cards;
;
proc plot;
plot part*years;
run;
proc autoreg;
model part=years/method=ml nlag=1;
output out=new p=yhat r=resid;
run;
proc plot;
plot part*years yhat*years='*'/overlay;
plot resid*years/vref=0;
run;
proc standard mean=0;
var resid;
proc means var;
var resid;
```

SAS program used to analyze participation rates:

```
options ls=72;
data;
input part years @@;
proport=part;
sqrtpro=sqrt(proport);
arcpro=arsin(sqrtpro);
apro1000=1000*arcpro;
list;
cards;
;
proc plot;
plot part*years;
run;
proc autoreg;
model apro1000=years/method=ml nlag=1;
output out=new p=yhat r=resid ucl=u lcl=l;
proc print data=new noobs;
var u yhat l;
run;
proc plot;
plot part*years yhat*years='*'/overlay;
plot resid*years/vref=0;
run;
proc standard mean=0;
var resid;
proc means var;
var resid;
proc print data=new;
var apro1000;
run;
```

Statistical package for the social sciences (SPSS) used to analyze if two trends, both linear or non-linear, were similar using Wilcoxin Paired Rank Sum Tests.

```
set errors=listing messages=listing printback=listing results=listing.  
set width=80.  
set length=none.  
data list free/spart years.  
begin data.  
end data.  
list.  
sort cases by years.  
save outfile='spart10.sav'.  
execute.  
data list free/fpart years.  
begin data.  
end data.  
list.  
sort cases by years.  
match files file='spart10.sav'/file=*/by years.  
descriptives vars=spart (zspart) fpart (zfpart)/save.  
list.  
npar tests wilcoxcin=zspart with zfpart.  
execute.
```

## Appendix C

### Quantitative Data Used for Analysis

Actual data used in the analysis. The data set includes the following for available years 1970 - 1992 for Knox County, Tennessee and the United States:

Total population

Households

Age 65 years and older

5-14 year olds

Total meals served in the Summer Feeding Program for Children

Average daily attendance in Summer Feeding Program for Children

Number of persons participating in Food Stamps

Number of households participating in Food Stamps

Number of meals served in Senior Nutrition Program

KNOX COUNTY					
YEAR	POPULATION	HOUSEHOLDS	65+	5-14 YRS.	POVERTY RATE
1970		87,365	27,007	50,218	17.70%
1971					
1972	289,124	95,011	29,299	48,888	
1973	289,978	96,923	29,747	48,555	
1974	292,954	98,835	30,295	48,222	
1975	299,600	102,658	31,391	47,557	
1976	305,385	106,481	32,487	46,892	
1977	306,878	108,377	33,035	46,559	
1978	310,879	110,289	33,583	46,226	
1979	316,648	113,959	34,679	45,561	
1980	319,694	117,951	35,777	44,897	14.70%
1981	324,621	124,226	38,545	43,459	
1982	328,679	127,364	39,929	42,740	
1983	328,525	127,364	39,929	42,740	
1984	326,466	124,226	38,545	43,459	
1985	326,411	124,226	38,545	43,459	
1986	323,823	121,088	37,161	44,178	
1987	325,414	124,226	38,545	43,459	
1988	329,927	127,363	39,929	42,740	
1989	333,739	130,499	41,313	42,021	
1990	336,619	133,639	42,696	41,303	14.10%
1991	341,447	134,975	43,260	40,889	
1992	347,075	137,675	44,041	40,071	

TENNESSEE						
YEAR	POPULATION	HOUSEHOLDS	65+	5-14 YRS.	POVERTY RATE	
1970						21.80%
1971						
1972	4,088,445	1,299,000	406,000	669,000		
1973	4,138,417	1,327,000	414,000	669,000		
1974	4,201,621	1,359,000	429,000	651,000		
1975	4,260,829	1,382,000	441,000	645,000		
1976	4,329,160	1,424,000	453,000	639,000		
1977	4,401,939	1,454,000	465,000	636,000		
1978	4,461,639	1,494,000	478,000	627,000		
1979	4,533,297	1,556,253	429,000	610,000		
1980	4,591,023	1,618,505	518,000	719,868		16.50%
1981	4,627,668	1,649,733	531,000	711,000		
1982	4,646,050	1,662,730	543,000	706,000		
1983	4,659,799	1,673,226	554,000	702,000		
1984	4,686,803	1,705,069	565,000	702,000		
1985	4,715,288	1,736,793	577,000	697,000		
1986	4,738,700	1,759,900	589,000	690,000		
1987	4,782,935	1,791,000	602,000	689,000		
1988	4,822,432	1,820,000	612,000	693,000		
1989	4,854,463	1,844,000	625,000	697,000		
1990	4,877,203	1,853,725	618,903	676,466		15.70%
1991	4,949,510	1,881,000	627,901	679,950		
1992	5,019,629	1,917,000	637,083	690,352		

UNITED STATES						
YEAR	POPULATION	HOUSEHOLDS	65+	5-14YRS.	POVERTY RATE	
1970						13.70%
1971						
1972	209,283,904	67,132,000	21,020,000	39,711,000		
1973	211,357,490	68,737,000	21,525,000	38,983,000		
1974	213,341,552	70,255,000	22,061,000	38,716,000		
1975	215,465,246	71,535,000	22,696,000	38,240,000		
1976	217,562,728	73,297,000	23,278,000	37,759,000		
1977	219,759,860	74,588,000	23,892,000	37,034,000		
1978	222,095,080	76,597,000	24,502,000	36,220,000		
1979	224,567,234	78,284,000	25,134,000	35,392,000		
1980	226,545,805	80,389,673	25,707,000	34,838,000		12.40%
1981	229,466,391	82,130,102	26,221,000	34,360,000		
1982	231,665,106	83,635,001	26,787,000	34,103,000		
1983	233,792,697	83,635,001	27,361,000	33,922,000		
1984	235,825,544	85,201,728	27,878,000	33,788,000		
1985	237,924,311	86,553,855	28,416,000	33,692,000		
1986	240,133,472	87,742,540	28,008,000	33,572,000		
1987	242,289,738	88,855,000	29,626,000	33,807,000		
1988	244,289,738	90,234,000	30,124,000	34,255,000		
1989	246,819,839	91,484,000	30,682,000	34,714,000		
1990	248,718,291	91,947,000	31,224,000	35,255,000		13.10%
1991	252,137,973	92,895,000	31,754,000	35,908,000		
1992	255,038,739	94,401,000	32,270,000	36,247,000		

KNOX COUNTY SUMMER FEEDING PROGRAM FOR CHILDREN TOTAL MEALS SERVED 1977-1992			
YEAR	5-14 YRS	MEALS SERVED	
1970			
1971			
1972			
1973			
1974			
1975			
1976			
1977	46,559	281,066	6.0368
1978	46,226	293,311	6.3452
1979	45,561	299,433	6.5721
1980	44,897	290,926	6.4798
1981	43,459	218,053	5.0174
1982	42,740	276,087	6.4597
1983	42,740	193,600	4.5297
1984	43,459	250,264	5.7586
1985	43,539	152,141	3.4944
1986	44,178	307,120	6.9519
1987	43,459	274,120	6.3076
1988	42,740	200,000	4.6795
1989	42,021	152,734	3.6347
1990	41,303	160,617	3.8888
1991	40,889	190,542	4.6599
1992	40,071	176,085	4.3943

**TENNESSEE SUMMER FEEDING PROGRAM FOR CHILDREN TOTAL MEALS SERVED RATE 1977-1992**

YEAR	5-14 YRS	MEALS SERVED						
1970								
1971								
1972								
1973								
1974								
1975								
1976								
1977	636,000	1,651,717	2.597					
1978	627,000	1,486,668	2.3711					
1979	610,000	1,513,643	2.4814					
1980	719,868	1,349,032	1.874					
1981	711,000	1,181,992	1.6624					
1982	706,000	901,814	1.2774					
1983	702,000	979,572	1.3954					
1984	702,000	963,161	1.372					
1985	697,000	892,995	1.2812					
1986	690,000	887,501	1.2862					
1987	689,000	895,671	1.2999					
1988	693,000	937,044	1.3522					
1989	697,000	986,271	1.415					
1990	676,466	1,193,416	1.7642					
1991	679,000	1,319,826	1.9411					
1992	690,352	1,766,054	2.5582					

UNITED STATES SUMMER FEEDING PROGRAM FOR CHILDREN TOTAL MEALS SERVED RATE 1977-1992			
YEAR	5-14 YRS	MEALS SERVED	
1970			
1971			
1972			
1973			
1974			
1975			
1976			
1977	37,034,000	170,418,639	4.6017
1978	36,220,000	120,323,526	3.322
1979	35,392,000	121,758,140	3.4403
1980	34,838,000	108,188,610	3.1055
1981	34,360,000	90,382,258	2.6305
1982	34,103,000	68,227,192	2.0006
1983	33,922,000	71,312,805	2.1023
1984	33,788,000	73,835,062	2.1853
1985	33,692,000	77,200,873	2.2914
1986	33,572,000	77,119,837	2.2972
1987	33,807,000	79,915,889	2.3639
1988	34,255,000	80,315,386	2.3446
1989	34,714,000	85,998,886	2.4774
1990	32,255,000	91,217,672	2.5874
1991	35,908,000	96,217,607	2.6795
1992	36,640,816	107,440,226	3.0475

KNOX COUNTY SUMMER FEEDING PROGRAM AVERAGE DAILY ATTENDANCE RATE 1977 - 1992							
YEAR	51-14 YRS	ATTENDANCE					
1970							
1971							
1972							
1973							
1974							
1975							
1976							
1977	46,559	3169	0.06806				
1978	46,226	3213	0.06951				
1979	45,561	3236	0.07103				
1980	44,897	3051	0.06796				
1981	43,459	2531	0.05824				
1982	42,740	2600	0.06083				
1983	42,740	2400	0.05615				
1984	43,459	2400	0.05522				
1985	43,539	3000	0.06891				
1986	44,178	4065	0.09201				
1987	43,459	3635	0.08364				
1988	42,740	2645	0.06189				
1989	42,021	2560	0.06092				
1990	41,303	2390	0.05787				
1991	40,889	2305	0.05637				
1992	40,071	2994	0.07417				

TENNESSEE SUMMER FEEDING PROGRAM FOR CHILDREN AVERAGE DAILY ATTENDANCE RATE 1977 - 1992									
YEAR	5-14 YRS	ATTENDANCE							
1970									
1971									
1972									
1973									
1974									
1975									
1976									
1977	636,000	40,545	0.06375						
1978	627,000	33,841	0.05397						
1979	610,000	32,798	0.05376						
1980	719,868	28,149	0.03911						
1981	711,000	24,102	0.03389						
1982	706,000	20,973	0.02971						
1983	702,000	13,470	0.01918						
1984	702,000	20,762	0.02958						
1985	697,000	10,411	0.01494						
1986	690,000	20,354	0.02949						
1987	689,000	21,206	0.03078						
1988	693,000	20,697	0.02986						
1989	697,000	20,027	0.02873						
1990	676,466	21,882	0.03235						
1991	679,950	25,368	0.03731						
1992	690,352	30,688	0.04445						

UNITED STATES SUMMER FEEDING PROGRAM FOR CHILDREN AVERAGE DAILY ATTENDANCE 1977-1992								
YEAR	5-14 YRS	ATTENDANCE						
1970								
1971								
1972								
1973								
1974								
1975								
1976								
1977	37,034,000	2,790,585	0.07564					
1978	36,220,000	2,332,961	0.06441					
1979	35,392,000	1,125,637	0.03181					
1980	34,838,000	1,922,433	0.05518					
1981	34,360,000	1,926,896	0.05608					
1982	34,103,000	1,396,541	0.04095					
1983	33,922,000	1,401,111	0.0413					
1984	33,788,000	1,422,868	0.04211					
1985	33,692,000	1,441,641	0.04279					
1986	33,572,000	1,509,281	0.04496					
1987	33,807,000	1,560,195	0.04615					
1988	34,255,000	1,577,000	0.04604					
1989	34,714,000	1,652,047	0.04759					
1990	32,255,000	1,689,957	0.04794					
1991	35,908,000	1,845,178	0.05139					
1992	36,640,816	1,921,611	0.05244					

KNOX COUNTY FOOD STAMPS RATE OF PERSONS AND HOUSEHOLDS PARTICIPATING 1973 - 1992							
YEAR	POPULATION	PERSONS PART.		YEAR	# OF HOUSEHOLDS	HOUSEHOLDS PART.	
1970				1970			
1971				1971			
1972				1972			
1973	289,978	22,801	0.07863	1973	96,923	7,620	0.07862
1974	292,954	23,311	0.07957	1974	98,835	7,769	0.07861
1975	299,600	28,702	0.09581	1975	102,658	9,284	0.09043
1976	305,385	26,646	0.08725	1976	106,481	9,073	0.0852
1977	306,878	25,170	0.08202	1977	108,377	8,818	0.08136
1978	310,879	25,616	0.08239	1978	110,289	9,363	0.08489
1979	316,648	30,841	0.09739	1979	113,959	11,968	0.10502
1980	319,694	38,154	0.11934	1980	117,951	15,385	0.13044
1981	324,621	38,373	0.11821	1981	124,226	15,824	0.12738
1982	328,679	32,176	0.09789	1982	127,364	12,494	0.09801
1983	328,525	31,123	0.09474	1983	127,364	11,930	0.09367
1984	326,466	28,970	0.08855	1984	124,266	10,962	0.08821
1985	326,411	29,330	0.08985	1985	124,266	10,475	0.08429
1986	323,823	29,114	0.08991	1986	121,088	10,398	0.08587
1987	325,414	28,460	0.08745	1987	124,266	10,544	0.08485
1988	329,927	28,391	0.08605	1988	127,363	10,515	0.08256
1989	333,739	28,636	0.08581	1989	130,499	11,014	0.08439
1990	336,619	30,534	0.09071	1990	133,639	11,744	0.08788
1991	341,447	33,282	0.09747	1991	134,975	13,313	0.09863
1992	347,075	40,639	0.11709	1992	137,675	16,256	0.11808

TENNESSEE FOOD STAMPS RATE OF PERSONS AND HOUSEHOLDS PARTICIPATING 1973-1992						
YEAR	POPULATION	PERSONS PART.		YEAR	# OF HOUSEHOLDS	HOUSEHOLDS PART.
1970				1970		
1971				1971		
1972				1972		
1973	4,138,417	311,460	0.07526	1973	94,629	0.07131
1974	4,201,621	329,263	0.07836	1974	96,495	0.071
1975	4,260,829	434,582	0.10199	1975	125,159	0.09056
1976	4,329,160	399,609	0.09231	1976	119,026	0.08359
1977	4,401,939	371,220	0.08433	1977	117,401	0.08074
1978	4,461,639	385,296	0.08636	1978	123,624	0.08275
1979	4,533,297	496,025	0.10942	1979	171,230	0.11003
1980	4,591,023	647,640	0.14106	1980	236,030	0.14583
1981	4,627,688	665,294	0.14376	1981	255,056	0.15461
1982	4,646,050	635,893	0.13687	1982	230,047	0.13835
1983	4,659,799	598,192	0.12837	1983	212,180	0.12681
1984	4,686,803	540,457	0.11531	1984	192,567	0.11294
1985	4,715,288	508,681	0.10788	1985	181,672	0.10461
1986	4,738,700	514,116	0.10849	1986	183,613	0.10433
1987	4,782,935	500,879	0.10472	1987	185,511	0.10358
1988	4,822,432	497,566	0.10317	1988	184,285	0.10125
1989	4,854,463	496,777	0.10233	1989	191,068	0.10362
1990	4,877,203	522,478	0.10712	1990	200,953	0.10841
1991	4,949,510	573,303	0.11583	1991	229,321	0.12191
1992	5,019,629	701,642	0.13978	1992	280,657	0.14641

UNITED STATES FOOD STAMPS NUMBER OF PERSONS AND HOUSEHOLDS PARTICIPATING 1973-1992							
YEAR	POPULATION	PERSONS PART.		YEAR	# OF HOUSEHOLDS	HOUSEHOLD PART.	
1970				1970			
1971				1971			
1972				1972			
1973	211,357,490	12,200,000	0.05772	1973	68,737,000	4,880,000	0.07099
1974	213,341,552	12,900,000	0.06046	1974	70,255,000	5,160,000	0.07345
1975	215,465,246	17,100,000	0.07936	1975	71,535,000	6,840,000	0.09562
1976	217,562,728	18,500,000	0.08503	1976	73,297,000	7,400,000	0.10009
1977	219,759,860	17,100,000	0.07781	1977	74,588,000	6,840,000	0.09171
1978	222,095,080	16,000,000	0.07204	1978	76,597,000	6,400,000	0.08355
1979	224,567,234	17,700,000	0.07781	1979	78,284,000	7,080,000	0.09044
1980	226,545,805	21,100,000	0.09314	1980	80,389,673	7,500,446	0.09331
1981	229,466,391	22,400,000	0.09762	1981	82,130,000	8,215,411	0.10003
1982	231,665,106	21,700,000	0.09367	1982	82,945,072	7,906,747	0.09532
1983	233,792,697	21,600,000	0.09239	1983	83,635,001	7,851,017	0.09387
1984	235,825,544	20,900,000	0.08862	1984	85,201,728	7,593,926	0.08913
1985	237,924,311	19,900,000	0.08364	1985	86,553,855	7,331,142	0.0847
1986	240,133,472	19,400,000	0.08079	1986	87,742,540	7,213,147	0.08221
1987	242,289,738	19,100,000	0.07883	1987	88,855,000	7,132,443	0.08027
1988	244,289,738	18,600,000	0.07614	1988	90,234,000	7,055,589	0.07819
1989	246,819,839	18,800,000	0.07617	1989	91,484,000	7,231,080	0.07904
1990	248,718,291	20,100,000	0.08081	1990	91,947,000	7,795,796	0.08479
1991	252,137,973	22,600,000	0.08963	1991	92,895,000	8,877,435	0.09556
1992	255,038,739	25,400,000	0.09959	1992	94,401,000	10,059,659	0.10656

**KNOX COUNTY SENIOR NUTRITION PROGRAM (HOME AND CONGREGATE MEALS) PARTICIPATION RATE 1974 - 1992**

YEAR	65+	PARTICIPATION							
1970									
1971									
1972									
1973									
1974	30,295	178,689	5.8983						
1975	31,391	205,475	6.5456						
1976	32,487	200,945	6.1853						
1977	33,035	227,035	6.8726						
1978	33,583	227,035	6.7604						
1979	34,679	217,500	6.2718						
1980	35,777	261,000	7.2952						
1981	38,545	240,000	6.2265						
1982	39,929	207,582	5.1988						
1983	39,929	185,228	4.6389						
1984	38,545	212,500	5.5131						
1985	38,545	213,750	5.5455						
1986	37,161	212,500	5.7184						
1987	38,545	221,731	5.7525						
1988	39,929	230,504	5.7728						
1989	41,313	253,159	6.1278						
1990	42,696	265,370	6.2153						
1991	43,260	228,600	5.2843						
1992	44,041	226,310	5.1362						

TENNESSEE SENIOR NUTRITION PROGRAM (HOME AND CONGREGATE MEALS) PARTICIPATION RATE 1977 - 1992

YEAR	65+	PARTICIPATION							
1970									
1971									
1972									
1973									
1974	429,000	771,305	1.7979						
1975	441,000	1,189,584	2.6975						
1976	453,000	1,652,284	3.6486						
1977	465,000	1,878,910	4.0407						
1978	478,000	2,613,065	5.4666						
1979	429,000	2,960,000	6.8998						
1980	518,000	3,231,511	6.2384						
1981	531,000	3,729,362	7.0233						
1982	543,000	3,626,253	6.6782						
1983	554,000	3,671,512	6.6273						
1984	565,000	4,014,664	7.1056						
1985	577,000	3,829,479	6.6369						
1986	589,000	3,702,485	6.2861						
1987	602,000	3,655,961	6.0731						
1988	612,000	3,835,046	6.2664						
1989	625,000	3,952,581	6.3241						
1990	618,903	3,962,849	6.4031						
1991	627,901	3,756,205	5.9822						
1992	637,083	3,685,187	5.7845						

UNITED STATES SENIOR NUTRITION PROGRAM (HOME AND CONGREGATE MEALS) PARTICIPATION RATE 1974-1992									
YEAR	65+	PARTICIPATION							
1970									
1971									
1972									
1973									
1974	22,061,000	53,902,938	2.4434						
1975	22,696,000	72,891,712	3.2117						
1976	23,278,000	92,341,282	3.9669						
1977	23,892,000	105,232,657	4.0451						
1978	24,502,000	134,373,162	5.4842						
1979	25,134,000	153,668,783	6.1139						
1980	25,707,000	166,277,362	6.4617						
1981	26,221,000	184,548,185	7.0382						
1982	26,787,000	188,024,898	7.0193						
1983	27,361,000	199,961,408	7.3083						
1984	27,878,000	211,726,481	7.5948						
1985	28,416,000	224,058,543	7.8849						
1986	29,088,000	226,684,260	7.7931						
1987	29,626,000	230,470,363	7.7793						
1988	30,124,000	242,165,475	8.0389						
1989	30,682,000	241,612,711	7.8747						
1990	31,244,000	243,634,186	7.8028						
1991	31,754,000	242,358,139	7.6324						
1992	32,270,000	243,111,910	7.5337						

**PART 3**

**ACCESS TO FOOD: THE OUTCOMES AND IMPACT OF  
A LOCAL FOOD SYSTEM POLICY**

# CHAPTER 1

## Introduction

In 1981 the City Council of Knoxville, Tennessee passed a resolution (1) signifying food system policy was an official responsibility of the City of Knoxville. This stemmed in part from the Mayor's interest in two studies about food-related needs in Knoxville (2-3). The resolution stated food was a local government concern because it directly impacted the health and well-being of the citizens in Knoxville. A Food Policy Council was formed that year, with participant selection by the Mayor, to monitor and advise the Mayor, City Council, and citizens of Knoxville on how the food system could be improved. The Council developed five goals for the food system policy. One goal included assuring that Knoxville residents had access to an adequate and nutritious food supply (2-3). Decisions made at any level of government have potential to impact its citizens.

A research study was undertaken to evaluate what impact the food system policy, implemented by the Food Policy Council, had on assuring access to food. Evaluation of programs, plans, and procedures that result from policies has often been done to determine whether they are appropriate and effective means of guiding governmental decision-making (4-6). When conducting impact evaluation Levinson and colleagues (7) indicate that the evaluation should include an explicit assessment of the implementation process to determine the extent to which the target population was reached and services were delivered. An understanding of the implementation process helps to understand what program interventions attributed to the positive result of the evaluation or if negative, whether the lack of impact was due to a structural defect or faulty implementation.

## **Models for Implementing Food System Policies**

Several models for implementing food system policies have been identified (8). Coalitions (including both private and public stakeholders), local government, task forces, non-profit, and for-profit organizations are examples of these models. No single agreed upon model, group or establishment exists to implement food system policy. The structure of how these groups function has varied from very formal to more loose. To address long-term goals, two models have been suggested to address food system policy actions: coalitions and food policy councils. Coalitions have been seen as a preferred method to advocate for food policy and promotion of health (8). Coalitions can have diverse structures, constituents, and relations to government and are made up of a range of stakeholders from the community.

Food policy councils have been identified as another method to implement food policies. Food policy councils and coalitions are both made up of smaller, yet diverse groups of stakeholders. However, Councils, unlike coalitions, are public entities created typically by executive and/or legislative branches of local government. The Knoxville Food Policy Council was created from a local government resolution and given limited resources from the City for its use. At its inception the Council was represented by seven members, but with bylaw revisions the member number increased to nine in 1992 (9-10). People who have served on the Council have included those with governmental and food business ties and those actively involved with neighborhood and consumer interests.

Food policy councils have been described as typically serving four basic roles: advising, advocating, providing forums for information exchange, and offering an educational resource for the public (8). Other functions include:

- (1) Monitoring, compiling, and analyzing information about the food system;
- (2) Coordinating the food system by organizing the food constituency;
- (3) Educating policymakers and appealing for their support;
- (4) Reviewing governmental budgets, reports, or plans to determine if impacts on the food system are properly considered;
- (5) Negotiating for and developing food policies;
- (6) Taking positions on food issues and sharing this information with the public;
- (7) Identifying and organizing institutions and organizations who can develop and manage projects;
- (8) Sharing recommendation for problem resolution; and
- (9) Conducting research and public education (8).

Food policy councils are seen as a significant initial step toward a comprehensive local planning process for food security.

Many challenges are faced by food policy councils trying to operate successfully (8). For example, with a broader representation of people on the council from the food system, there is greater potential risk for conflict. Because membership and recruitment are ongoing processes, clearly defined criteria for member involvement are needed, due to potential differing agendas of the members. Effective leadership is also important. According to Biehler and colleagues (8) the leader should have the skills and tenacity to commit to the job. Resources such as staff and money should meet the ambitiousness of the agenda of the food policy council. While a council should consider all viewpoints of politicians and cultivate political support on an on-going basis, it also should have a clear mission statement and vision (8). Council members should clarify their purpose in relation to other food-related organizations and resist the urge to implement projects that will not be an effective use of time and resources. Councils should be policy-makers not project doers and, therefore, projects can be implemented by official government agencies, voluntary sector agencies, and private sector organizations (8). Food policy

councils should stay accountable to the people and government and maintain visibility. Ongoing work plans and evaluation should be completed to help members understand their goals and develop attainable objectives (8). Once organized, these councils can move on to comprehensive food system planning.

### **Evaluating the Implementation Process**

Evaluations of the implementation process are found in the literature (4-6,11). For example, when the Canadian government wanted to reduce the number of fatal car accidents, it mandated seat belt use (6). To study the effectiveness of the mandatory seat belt law, an evaluation was conducted to determine seat belt use and number of accident casualties. Another study completed in the United States assessed the effect of cigarette taxes initiated from 1955 to 1994 on cigarette consumption (4).

A number of research strategies to study the results of policies have been described (12) and include: 1) the historical method, which includes content analysis; 2) descriptive surveys; 3) analytic surveys; and 4) experimental designs, such as case studies and time-series experimental designs. Several techniques, such as content analysis, cost-benefit analysis, cost-effectiveness analysis, case studies, and time-series design, have been seen in the policy analysis literature frequently (4-6,11). Triangulation, or the combination of methodologies, has been used to strengthen a study design (5).

The purpose of this overall dissertation research was to analyze and describe systematically what had been the impact of the Knoxville food system policy on the goal of assuring that an adequate and nutritious food supply is available to all citizens in Knoxville. The two primary research questions were: 1) to ask whether the policy,

implemented through a food policy council, made an impact on citizens in Knoxville having access to food; and 2) to describe the Council's activities and processes as a means to better understand how the Council operated and the results of any impact shown on access to food. An examination of the policy literature assisted in the design of the analyses for this overall research. The analysis to address the first research question is described briefly below and in detail in Part 2 of this dissertation. A more complete description of the analysis for the second research question follows below.

### **Analysis of Question One: Impact on Access to Food**

The first analysis involved a quasi-experimental quantitative study design using control group time-series analysis. Because the availability and accessibility of federal food programs have been considered community characteristics that influence a person's access to food (13), participation in these programs was studied over a 20 year period. Changes in participation were analyzed in three jurisdictions for three food assistance programs: Food Stamps, the Senior Nutrition Program, and the Summer Feeding Program for Children. Changes in trends were analyzed for the ten years prior to the initiation of the Food Policy Council and the ten years after its initiation. Changes in these trends were compared to trends in Tennessee and the United States. Both of these jurisdictions were without a food system policy. Trends in participation were compared between these two time periods and across jurisdictions to determine if trends changed after the Council's development. Trends in participation were analyzed two ways: absolute participation and participation rates using total population as the denominator.

The results of this study showed that the Knoxville Food Policy Council had no impact on participation in the Food Stamp Program, Senior Nutrition Program and Summer Feeding Program for Children when rates were used. However, when absolute participation was used, an impact with an increasing trend was seen in the Senior Nutrition Program, an impact that could not be described was seen in the Summer Feeding Program for Children, and no impact was seen in the Food Stamp Program. It was hypothesized that the type of program, entitlement or discretionary, could influence how much a local food system policy could impact these national programs. To better understand these results, the processes and activities of the Knoxville Food Policy Council were examined in the second analysis described here.

### **Analysis of Question Two**

The purpose of this analysis was to describe the activities and processes of the Knoxville Food Policy Council during the 10 years after its initiation to better understand how it operated and the results of any impact shown on access to food.

## CHAPTER 2

### Methods

The design of this qualitative study used grounded theory, which further strengthened the overall project's study design and allowed for further examination of the results of the quantitative time-series study. To analyze the activities and processes of the Food Policy Council, content analysis and constant comparative analysis as described by Miles and Huberman (14) were used. The monthly meeting minutes were the data used for this analysis. This type of analysis yielded an objective and quantitative description of the content of communication. A fixed set of questions was asked about the data resulting in countable results (14).

Prior to the analysis all that was known by the researcher about the suggested roles of the Council was that it was to monitor and evaluate the food system in terms of cost, availability, and accessibility. It was to use this evaluation to define how the Knoxville food system could impact on health and economics (1). It was to identify food-related problems, offer solutions, develop goals and objectives, and act as a forum for discussion and coordination of the community-wide food supply and distribution efforts. Council members were to advise the public, Mayor and City Council about these issues. The primary researcher, however, did not enter the research with any intention of structuring the data around these roles or roles identified by other food policy councils. Therefore, the functions and activities of the Council emerged during data analysis. A description of the technique of content analysis is described below.

Content analysis includes three concurrent flows of activities: 1) data collection and reduction; 2) data display; and 3) conclusion drawing/verification (14). The first

flow of activity, data collection and reduction, involves a series of steps to identify which data set, conceptual framework, research questions, and data collection approach to use. The data set obtained is reduced further by coding, memoing, summarizing, and developing themes as data collection proceeds. Data display, the second major flow of activity, includes displaying the data as matrices, graphs, charts, or networks to permit conclusion drawing. All displays are designed to assemble a lot of information into a compressed form so that the researcher can see what is happening and draw justified conclusions. Drawing conclusions and verification, the third flow of activities, involves being able to base a claim on some observation and assuring that the patterns and regularities of the meaning of the data are found in the data set. The conclusions of the data analysis are tested for validity and reliability. These activities were completed for this study as described below.

## **Data Collection and Reduction**

### ***Conceptual Framework***

Since the Food Policy Council was the vehicle for implementation of the food system policy, its activities provided the conceptual framework to study. Therefore, the roles of the people involved with the Food Policy Council and the Council's activities and decisions made during their deliberations were examined.

### ***Research Questions***

A set of research questions and several sub-questions were identified, based on the conceptual framework, to understand the Food Policy Council activities and results of

its activities. These include:

- (1) How did the Food Policy Council identify and clarify food-related problems?
- (2) How did the Food Policy Council conceptualize problems and solutions?
- (3) How did the Food Policy Council decide to adopt a recommendation?
- (4) What were the Food Policy Council's recommendations and plans for implementing recommendations? and
- (5) How did the Food Policy Council evaluate the implementation process?

The sub-questions helped to narrow the questioning even further and are found in Appendix A.

### ***Data Collection***

Several documents were developed by the Council during its deliberations, such as monthly meeting minutes, annual summary reports, policy statements, and letters to other agencies. Only the monthly meeting minutes were used as the data set for this analysis because they were the fundamental source of information about the process by which policies were developed, implemented, and evaluated. Using the minutes allowed the researcher to describe the elements of the activities of the Council that linked processes with outcomes. The Food Policy Council had its first meeting in July of 1982 and met monthly as specified in its bylaws. The monthly meeting minutes contained a narrative summary of Council deliberations. The first 10 years of monthly meeting minutes, or 120 months from July 1982 to June 1992, were analyzed to coincide with the years used in the quantitative analysis for impact on access to food.

Monthly meeting minutes were gathered from the Food Policy Council records

that were maintained in three ring binders by staff at the Knoxville/Knox County Community Action Committee. If any minutes in the 10 years were not obtained from the binders, the appropriate file cabinets were reviewed and these minutes then were gathered. Six copies of the minutes were made, and of these, one was stored with the major professor. The other five copies were used for analysis. All lines of each copy were numbered consecutively for ease of use when coding.

### ***Data Reduction***

The next step in analysis included reduction of the data set of the 10 years of minutes through open coding (level 1) and pattern coding (level 2) (14). The first step in data reduction, open coding, included descriptive and inferential coding. Open coding produced a smaller set of general concepts within the data set. A code, also known as a tag or label, was assigned to each concept within the data set. Descriptive codes, typically the first level of understanding about what is being read, required little interpretation and involved attributing a class of phenomena to a segment of text. Inferential codes were more explanatory than the descriptive codes.

Pattern coding, or level 2 coding, an even more inferential or explanatory level of analysis, was performed subsequently. Pattern codes group the level one codes into a more inclusive and meaningful whole. This coding involved examination of each of the concepts or meaning segments generated in first level coding to find common relationships or categories.

For example, the monthly meeting minutes may have read, *the Food Policy*

*Council Chair suggested the Council alert the Mayor of Knoxville.* At first observation open coding might assign "FPC ROLE" as the first level code. However, as the researcher began to understand better what was happening in the data set, the coding would become more inferential or more explanatory about the meaning behind what was being written. In this example the analysis showed that the Food Policy Council was advisory to the Mayor, and a decision to change something about the food system by the Mayor might be necessary. The data could be coded more explicitly as "FPC ROLE/ADV" to indicate the role of the Food Policy Council was to advise the Mayor of Knoxville. Further analysis would produce an understanding of the relationship among the codes and, therefore, would contribute pattern or level two codes. In this analysis level one and level two coding was performed by the primary researcher and a trained assistant and compared to a second set generated by three trained researchers.

Analysis of the monthly meeting minutes began with level one coding completed by a primary researcher and trained assistant on the first 296 lines of the Food Policy Council meeting minutes, or eight pages. These pages were coded separately by the researcher and assistant using descriptive and inferential coding. Upon completion of this coding the two researchers discussed their codes and definitions and initial difficulties in code definition. They then modified and combined their code definitions to make them more explicit and exact. Any disagreement between the two researchers signified that a definition had to be clarified. Time spent clarifying code definitions helped bring a more distinct and clearer understanding of what the codes meant and the best fit for the data. An agreed upon list of codes with their definitions was finalized.

Therefore, no a priori list of codes was identified. This list of codes then was used by the two researchers to check-code the same 296 lines of the minutes.

Because reliability of results is very important in qualitative research, inter-coder and intra-coder reliability checks were completed. For inter-coder reliability checks, two people code the same data set and their resulting codes are compared as follows:

$$\text{Reliability} = \frac{\text{Number of agreements}}{\text{Total number of agreements + disagreements}}$$

Inter-coder data coding continued with reliability checks on the first 296 lines again and on 300 lines of data at every 600 lines. The goals set for reliability were above 70% initially and 90% subsequently. In qualitative nutrition education studies, inter-rater reliabilities of 0.73 to 0.98 have established the stability of the measurement (14-18). Intra-coder reliability checks also were completed on 500 lines of data at every 1000 lines with goals of 80% initially and 90% subsequently. Frequency counts of level 1 codes also were obtained .

Contact summary sheets were completed immediately after level 1 coding on each 300 line section of the data set (Appendix B). Contact summary sheets helped the researchers summarize questions about the minutes, better understand the main events in the section of the data set they had just analyzed, guided planning for analysis of the next section of the data set, offered methods to suggest new or revised codes, reoriented the

researchers to the analysis, and provided a way of memoing to communicate with the other researcher.

Upon completion of first level coding, the two researchers met to discuss second level coding. The codes established in level 1 coding were analyzed to identify patterns. General ideas were discussed between the two researchers of what the pattern codes might include and how they could be best displayed. To check for second level coding reliability and test hypotheses of preliminary insights into the pattern codes, the two researchers compared their results against a set produced by three trained assistants. This group of assistant researchers was asked to use the level 1 codes to identify patterns and themes found in the same monthly meeting minutes.

On five occasions the primary researcher and three assistants met. At the first meeting, the three researchers were each given one complete set of monthly meeting minutes, an introduction to content analysis, and an understanding of what their purpose was in the research process. The level one codes identified previously were discussed. An explanation of how they had been obtained was described. The three assistant researchers were asked to read the monthly meeting minutes and draw conclusions about the meaning of what was happening. They were asked to identify patterns and themes and to write down their conclusions directly on the minutes. The conclusions were reviewed during the meetings and recorded both with a tape recorder and as written summaries obtained by the primary researcher. At the end of the first session the primary researcher summarized the conclusions drawn by the three assistants. The second session began with a review of the findings from the first session to reorient the group to the analysis. The group was asked to evaluate if the conclusions from the previous meeting

were as they had described, to come to consensus, and to proceed with further analysis of the next set of minutes.

Because initial data analysis with the three assistants was quite lengthy, the minutes from the first year, July 1982 to June 1983, were discussed in the first session and part of the second session. During the second session, conclusions drawn by the assistants on the second year of minutes were clarified and a consensus was obtained. Conclusions from year 3 were obtained in the third session. Years 4 and 5 were completed in the fourth session. Years 6 through 10 were completed in the fifth session. The patterns identified were compared and contrasted to the patterns obtained by the first two researchers. General agreement was found between the group of three assistants and two researchers. Although the terms or verbal tags for the pattern codes were different, the meanings or definitions behind the pattern codes were the same. For example, the three assistant researchers identified that the tasks of planning for the next Council meeting or rules of order were identified as a "HOUSEKEEPING" activity of the Council. The primary researcher and initial assistant identified this activity as "INTERNAL PROCEDURES".

### ***Data Display***

The method used to display the data was important because it represented a visual format for presentation of the information systematically so conclusions could be drawn. The data were arranged coherently to permit careful comparisons, detect differences, note patterns and themes, and see trends. The initial two researchers determined that the pattern codes would best be displayed as two time-oriented matrices (14). This display

was found to be helpful for understanding the flow, location and connection of activities of the Food Policy Council. Table 1 visually displays how a time-oriented matrix would appear with years in columns and pattern codes in rows. In this study the labels used for the matrix columns included the 10 years in which the meetings were held. The labels for the rows included the pattern codes that were identified. The content of the cross-section of a row and column, data block, included the data from the monthly meeting minutes that met the concept of the pattern code.

### ***Drawing and Verifying Conclusions***

Drawing and verifying conclusions occurred at every step in the analysis process. Reliability checks were completed on level one and two codes. Decision rules, including if-then questions, were written to determine what data went into the matrices. Each data block within a matrix was reviewed carefully by the primary researcher to verify, revise or confirm that the data within the blocks met the identified pattern code. As themes and conclusions were drawn, several tactics were used, such as noting patterns and themes, making contrasts and comparisons, clustering, and counting.

### ***Training of Research Personnel***

To provide a background and understanding of content analysis and level one and two coding, an initial training session was conducted by the primary researcher with an assistant graduate student researcher. It was recommended that a second reader such as a colleague, teammate, or secondary analyst code the same data (14). A description of content analysis and coding, as described in Miles and Huberman (14), was provided.

Table 1. Example of a basic time-oriented matrix: years in columns and pattern code in rows.

ISSUE \ YEAR	1	2	3	4	5	6	7	8	9	10
*	✓									
Example:  ACCESS TO FOOD	Loss of money will result in loss in transportation services									

\* Indicates pattern code identified in analysis would be placed here.

✓ Indicates excerpt from monthly meeting minutes that met the pattern code would be placed here.

Seven pages of text from a book, unrelated to this research, were analyzed using descriptive and inferential coding. These seven pages were read by the two researchers and data blocks were assigned codes. The codes obtained by both researchers and their meanings then were discussed. Common concepts and differences of meaning of the codes were reviewed. An agreed upon set of codes that fit the data was obtained. This analysis showed that a common ground of understanding of the meaning of the data could be achieved. The code words obtained allowed the researchers to get back to the original meaning or concept in the data set as quickly as possible. A discussion on the primary researcher's conceptual framework and review of the research questions to be asked was completed.

A second set of three assistant researchers was given a description of content analysis and coding. The three assistants read the first two pages of the monthly meeting minutes and performed level one coding. Each person's coding was compared and contrasted. This coding was compared to the primary researcher's and first assistant's codes. A common ground of understanding of the meaning of the data was achieved.

## CHAPTER 3

### Results

From the 120 monthly meeting minutes possible to obtain, a set of 96 months of actual minutes were gathered. A record of the monthly meeting minutes obtained and those missing is detailed in Appendix C. A review of the available minutes revealed that during 7 months a meeting was not held and during 2 months a conference or tour was given without minutes recorded. Minutes could not be found for the remaining 15 months (13%).

The results of level one coding and frequency counts from analysis of the monthly meeting minutes are included in Appendix D. Forty-eight level one codes were identified from the first year of meeting minutes. The majority of the level one codes initially identified were found consistently throughout the analysis. As proposed, the inter-coder reliability checks and intra-coder reliability checks met the proposed goal of 90% (Appendix E).

Analysis of level 2 pattern codes revealed agreement between those identified by the first two researchers and those of the second group of three researchers revealed agreement between the analyses (Appendix F). The pattern codes were displayed in two matrices. The first matrix identified the food system issues deliberated by the Food Policy Council over time. The second matrix identified the activities of the Council over time. The decision rules for entering data into matrices are identified in Appendix G.

## **Matrix One**

The results of the content analysis revealed that five issues from the food system policy were addressed by the Council. However, the level of involvement by the Council in each of these issues was not the same. The five areas of concern for the Food Policy Council during their first ten years of work are displayed in Table 2. The complete results of this matrix, including block entry data, are displayed in Appendix H.

The five areas identified coincided with the Council's food system policy. Of the five areas identified, the Council spent the majority of its time (75%) on access to food as evidenced by the 232 blocks of data that fit this theme compared to a total of 307 data blocks for all five themes. The other areas of activity in decreasing order of intensity included nutrition education 18% (55 blocks), quality of the food system 4% (13 blocks), economic vitality of the food industry 2% (6 blocks), and the environment 1% (1 blocks). Content analysis revealed that the Council members who attended the meetings directly influenced the issues that were addressed at each meeting. If a representative from the food industry was on the Council and consistently attended meetings, it was more likely that issues from this area of the food system would be addressed. The lead agency, the Community Action Committee (CAC), strongly influenced the direction the Council took. The three most frequently discussed issues, access to food, nutrition education, and quality of food, were a familiar focus of the CAC historically.

### ***Access to Food***

Access to food was addressed in all ten years of the Council's work with year 1, 1982 - 1982, being the highest level of intensity (18%) and year 6, 1987 - 1988, being the

**Table 2. Basic time-oriented matrix #1: Issues of interest of the Knoxville Food Policy Council during the first ten years of work.**

<div style="text-align: right; padding-right: 5px;">YEAR</div> <div style="text-align: left; padding-left: 5px;">ISSUE</div>	1	2	3	4	5	6	7	8	9	10
Access to Food										
Nutrition Education										
Quality of Food										
Economic Vitality of the Food Industry										
Environment										

lowest level of intensity (6%). Assuring access to food was an original goal of the Council. The majority of the Council's time was spent on deliberating how to improve access to food and implementation of these ideas. Several methods for improvement were discussed and further collapsed into four categories: maintaining and improving the food supply; transportation systems; participation in food programs; and financial resources. For example, strategies employed by the Council to improve the food system and access to food included consumer education and outreach, advising on legislative action, and changing program procedures.

Several additional strategies were identified to improve the food supply, such as adding a grocery store or food source to the inner-city, expanding community gardening, offering canning sessions, raising money and expanding food drives to reduce hunger. Strategies to physically get people to food by improving transportation issues were discussed, such as extending bus routes to more grocery stores, initiating a grocery bus to transport people to larger food stores, and identifying uniform, collapsible grocery carts as an option to transport groceries on these special buses.

Attempts to increase access to food by increasing participation in food assistance programs or expanding services were completed. Direct methods to influence changes in food assistance programs included writing letters to state and federal officials discouraging reductions in financial support for all food programs, but especially for the Food Stamp Program and Child Nutrition Programs. Letters were sent to local and state legislators and agency directors to support an increase in the number of schools participating in the National School Breakfast Program.

The Knox County school breakfast program was expanded by Year 10 to include 80% of the schools. However, no information was available to identify how many more students used the program. There was no mention in the minutes of improvements in participation of other food programs, such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), National School Lunch Program, Food Stamps, Senior Nutrition Programs, the Summer Feeding Program for Children, and Emergency or Commodity Foods. The Council collaborated with the Mobile Meals Program, a Senior Nutrition Program, on a newspaper article about the program in Year 8, July 1989 - June 1990. This article may have resulted in more people being made aware of the program and more referrals for the program. However, due to a lack of requisite financial support, a waiting list was initiated. New referrals were placed on this list.

Attempts to change legislation or governmental procedures to improve access to food included trying to remove the state sales tax on food, discouraging funding cuts of federal food programs, and requesting that city officials reviewing zoning classifications consider sources of food for people living in each zone. Additional examples included attempts to preserve agricultural land and managing the Federal Emergency Management Agency emergency food vouchers.

Within the first year of minutes, the content analysis revealed that an intangible boundary existed between the city and outside the city with regards to adequate access to food. Specifically, the inner-city was defined as having the greatest food-related problems with access to food. Therefore, a focus of the Council for the remaining years was on addressing access issues for inner-city residents.

### ***Nutrition Education***

Another significant issue the Council addressed was nutrition education. One goal of the Council was to encourage citizens to accept and consume nutritious food. Nutrition education was identified as the method to accomplish this and was addressed in all 10 years of the Food Policy Council's work. However, in year 8, 1989 - 1990, the intensity of activity on this issue tripled. Throughout the 10 year period the Council advocated for funding of a nutrition educator for the local school system. During year 10 this objective was accomplished.

Several other areas of nutrition education need were identified, such as the need to combat nutrition misinformation, train health and para-professionals, and promote weight loss. It was recognized also that younger people did not know how to cook, there was a need to increase awareness on health and nutrition issues, and caterers should be encouraged to serve low-calorie choices. Suggestions were made to promote traveling nutrition education shows, offer awards to restaurants that served low-calorie foods, and give comments on federal food labeling and nutrition guidelines for day care facilities.

In year 3, August 1984 - June 1985, a city-wide special recognition awards contest was initiated by the Food Policy Council. The Calorie Conscious Consumer Awards were given to restaurants who promoted and served low-calorie foods. The award recognition continued until 1990.

### ***Quality of Food***

The Council did not spend much time deliberating about issues related to the quality of food available. These issues were only discussed in 5 of the 10 years of the

Council's work. Problems were noted in relation to the quality of food in inner-city stores versus those outside the city and that foods served at breakfast meetings of elected officials were of "low quality". To combat this, the Council met with one grocery store owner concerning the quality of the food being sold in this store and the unsatisfactory physical surroundings. Temporary improvements were seen at this grocery store, although two years later these conditions worsened.

### ***Strengthening the Economic Vitality of the Food Industry***

Very little activity occurred in the area of strengthening the economic vitality of the food industry. Deliberations in this area only occurred in 3 of the 10 years of the Council's work. The Council did recognize, however, that there was a need to make agriculture more profitable and it supported a city-owned farmer's market. The availability of small loans was recommended for food store improvements. The Council also considered working as a group on direct marketing of food stores. Council members met with several grocery store owners to discuss how governmental decisions affect the food industry and economics. During this 10 year period a farmer's market was established in the county with support from the Council. However, no consistent follow through occurred for any other deliberations for this area of interest.

### ***Environment***

A minor area of concern was the environment and minimizing food-related activities that degraded the natural environment and limited waste. Only one activity occurred in this area in year 6, August 1987 - June 1988. A letter was sent from the

Council to the Knox County Solid Waste Authority encouraging recycling and cogeneration in solid waste planning.

## **Matrix Two**

A second matrix was produced to display the specific activities and processes of the Council during its first 10 years of work. The general results of the second matrix are displayed in Table 3. The detailed results of the matrix are included in Appendix I. From the matrices 7 themes emerged about the activities and processes of the Council. The themes were divided into functions that the Council had in relation to other agencies (external) and those within its own operations (internal). The Council spent the majority of its time on external activities (70%) and a minority of its time on internal activities (30%).

### ***External Activities***

The results of the content analysis indicated that there were 5 major external activities the Council performed.

**Needs assessment.** Beginning in 1982 and continuing through year 10, 1991 - 1992, the Council performed needs assessment. Of the 7 major activities the Council was involved in, needs assessment accounted for 53% of the involvement. Needs assessment is defined here as a process of informal monitoring, problem identification, solution identification, and tracking of results.

**Informal monitoring.** It is clear that the Council fulfilled its responsibility of monitoring the food system. The activity of informal monitoring represented 33% of the

Table 3. Basic time-oriented matrix #2: Activities of the Knoxville Food Policy Council during the first ten years of work.

YEAR \ ACTIVITY	1	2	3	4	5	6	7	8	9	10
<i>External</i>										
Needs Assessment - informal monitoring - problem identification - solution identification - tracking results										
Advising										
Creating Awareness of the Council										
Requests for Advice										
Policy Development										
<i>Internal</i>										
Internal Procedures										
Planning area of work emphasis										

total involvement in all activities. The information that was obtained helped the Council to understand the stakeholders in the local food system and how the system functioned. Informal monitoring served to educate the Council about issues in the food system. The information was collected using several strategies, including reading books, reports, handouts, newspaper and journal articles, and letters from other agencies and political officials. Other strategies for gathering information included watching slide presentations, touring the inner-city and food assistance programs, such as congregate meal sites, and reviewing maps of bus routes and food stores. The majority of information was obtained at meetings through presentations of Council members, outside agency personnel, and staff members of the Council including especially those from the lead agency, or CAC. Several recommendations were made to extend this monitoring activity into a more formal, consistent process for all aspects of the food system.

**Problem identification.** In years 1, 2, 9, and 10, a significant number of problems were identified, although the problems were not always stated clearly. The activity of problem identification accounted for 10% of the Council's involvement in all activities. For example, in year 1 one individual asked if there would be food facilities provided for residents in the downtown area in the future. It was not obviously clear that this was a problem for the inner-city residents.

Once problems were identified clearly, they were further categorized into those that required immediate action and those that required more intense, long-term attention. The content analysis revealed that the Council identified on several occasions that additional information was needed to determine if a problem truly existed in the food

system. Many times the Council stated there was a need in the food system. However, there often was not a clear statement of the specific problem.

**Solution identification.** Solutions to problems were often identified by Food Policy Council members and other agencies. The activity of solution identification represented 9% of the Council's involvement in all activities. The process by which solutions were identified included offering intuitive suggestions or brainstorming. Alternative solutions were discussed and assessed. In some cases documented studies were completed to evaluate if a solution was feasible. For example, food scarcity was identified in one geographic region of the inner-city. Opening a grocery store was offered as a solution. A feasibility study was completed to determine if there would be enough revenue generated to support this solution. There was also discussion about whether the food source was even needed. The Council brought the problems and solutions that were identified to the attention of the public and advocated for the citizens of Knoxville, especially those in the inner-city, by advising the decision-makers.

**Tracking results.** The results of recommendations or advice given to change a process or event in the food system were collected, tracked, and reported by the Council. The activity of tracking results accounted for 1% of the Council's involvement in all activities. Recommendations made by the Council were followed to see if changes in decision-making occurred. For example, the Council recommended that the bus routes be extended to include more grocery stores. The Council tracked whether these recommendations were accepted and whether these decisions remained implemented. Recommendations offered by the Council resulted in several extensions in the bus routes, an expansion in the number of school breakfast programs, amendments to the

Metropolitan Planning Commission's General Development Plan to include food system policies, an increase in the number of referrals to the Mobile Meals Program, and full funding of the school nutrition educator position.

*Advising.* Beginning in 1982 and decreasing in intensity through 1992, the Food Policy Council issued a number of recommendations to improve the food system to the Mayor, City Council, and community. The activity of advising represented 11% of the Council's involvement in all activities. This activity completed by the Council was identified as advising and was one of the original intended functions of the Food Policy Council. Advising was the process by which the Council attempted to get its recommendations for improvement of the food system on the agendas of other agencies. These recommendations were communicated to the community, other agencies and to the Mayor by several methods including letter writing and telephone calls to stakeholders. The Council or representatives from the Council attended meetings or networked, either in a private or public forum, where recommendations or requests were made for changes. For example, at a meeting of the city bus board (K-Trans) representatives from the Council advised that bus routes be extended and opportunities for riders to shop at one or more grocery stores be increased. The Council also presented the results of its work and offered recommendations to the City Council and Mayor annually at City Council meetings.

**Creating and extending awareness of the Council.** The FPC tried to create and extend awareness of itself across the 10 year period by promoting its activities through the media, including television, newspaper and magazine articles, international reports, and reviews at conferences. This activity accounted for 6% of the Council's involvement in total activities. The Council provided information to other cities, states, and countries about itself. Promoting awareness of the Council made it more visible and demonstrated the Council's need to be accountable. The information sent to other cities about the Council helped to guide planning of new food policy councils.

**Requests for advice.** During 9 of the 10 years the Council requested advice from other agencies and committees. The activity represented 3% of the Council in all activities. Non-members of the Council were asked to contribute advice on the state of the food system and how to improve it. Advisory committees were established by the Council with the major responsibility of identifying food-related needs in the Knoxville community. These committees provided a service to the Council by narrowing and clarifying food-related problems and providing specific advice on how to improve the food system. Other agencies also made recommendations on how to improve the food system.

**Developing policies.** Another activity of the Council included developing food system policies. The activity of developing policies accounted for 5% of the Council's involvement in all activities. A set of food system policy statements was added to the Metropolitan Planning Commission's General Development Plan (GDP 2000) in the third

year of work by the Council. A set of *Comprehensive Food Policies* (3) for the Knoxville food system were developed during the seventh year of work.

### ***Internal Activities***

To operate successfully two major structural activities took place over the 10 years. They were defined as internal procedures and planning FPC's area of work emphasis.

**Internal procedures.** The activity identified as internal procedures involved the formalized mechanisms for conducting meetings, such as the development of advisory committees, and bylaws. It also included annual duties such as work on the budget, creation of nominating committees, election of officers, annual retreat planning and printing of the annual report and Council brochure, orientation for new members and retirement for past members. Other internal procedures included discussion of staff work, meeting times and Council attendance. The Council's involvement in this activity represented 15% of the involvement in all activities.

**Planning the Council's area of work emphasis.** The Council did not have a formal work plan in the first two years of work. It began planning its area of work emphasis in Year 3, July 1984 - June 1985. Work area plans were outlined to identify what the Council was to address at either at the next meetings or the next year. No consistent method for identifying how to plan work was developed. Council staff, the Council consultant, the lead agency staff member, and the results of a hearing all served to direct the plans of work during years 3 through 10. In year 10 several members of the

Council felt the Council lacked direction and discussion was focused on a decrease in attendance. A retreat was held in year 10 to examine the future of the Council. This activity represented 7% of the Council's involvement in all activities.

## CHAPTER 4

### Discussion

The results of this study provide some insights into how a food policy council operates and how it can impact the food system and access to food. The Knoxville Food Policy Council concentrated most of its efforts on issues related to access to food, one of the Council's five goals. It was much less involved in the other four goals. It functioned primarily by assessing needs and advising.

As this study showed needs assessment, including informal monitoring of the food system, identifying problems and solutions, and tracking results of recommendations, was a time consuming process with over half of the Council's efforts devoted to this activity. Almost 30% of the Council's involvement was in monitoring the food system. Perhaps if quantitative measures for formal monitoring of the food system were set up and adequate time, personnel, and money were provided for this activity, the Food Policy Council could have utilized its time more efficiently to clarify definitions of problems, assess alternative solutions, and follow up on recommendations given to decision-makers to influence the food system more effectively. A more systematic monitoring system and its resulting information could have helped the Council to plan its area of work emphasis and could have provided a greater sense of accomplishment and satisfaction for its members. Without a systematic monitoring system with which to identify problems clearly which directs planning the work agenda of the Council, then those people who attend the meetings substantially influence the area of work emphasis of the Council as shown in this study.

Although the Council's roles and responsibilities included monitoring and evaluating the food system, setting goals and objectives, and giving advice for improvements (19), it had no direct decision-making role. Rather, the Council offered advice to legislators and individuals outside the Council who were decision-makers. Those Council members needing or wanting to see immediate and direct improvements in the food system might have felt very disappointed and frustrated working through others. The Council did offer advice, but it sometimes lacked clear problem identification, adequate solution generation and evaluation of alternative solutions.

It is noted that decision-makers in public organizations have been found to be more successful when they seek out expert views and use hard data (20). Therefore, perhaps an adequate assessment of alternative solutions to problems could have provided hard data or substantiated the recommendations of the Council. This could have resulted in greater success and less feelings of frustration by Council members. Biehler and others (8) have suggested also that for food policy action to take place a clear food system assessment, including an assessment of government policies, functions, activities, and budgets, is necessary. Because this is a foundation for recommending changes to the food system, it is an invaluable tool for educating the Council and the public.

Even when advice appears to be generally accepted, the advice may not result in a change in values or prompt changes to the food system. Therefore, council members must have a clear, accurate vision of their roles and realistic expectations of their responsibilities. Taking the time to write persuasive letters, make telephone calls, and attend deliberation meetings of other agencies is important because it encourages reciprocal communication and exchange of ideas and information. The number of calls

to the City bus board and meetings attended by Council members potentially influenced the change in bus routes. These types of efforts, therefore, can help influence improvements to the food system which impact access to food.

Four strategies for advocacy are suggested by Biehler (8): gaining political support; getting media coverage; developing legislation; and developing proposals. Gaining political support includes talking with insiders about political workings, assessing key political issues, finding a politician that supports efforts, educating city officials, building community support for recommendations, contacting decision-makers when legislation is pending and giving credit to those who help.

From the time the Council was initiated, it did receive verbal support from various Community agencies, including the Mayor's office. However, the Council jumped into action trying to recommend solutions to food-related issues without understanding the key political issues and agendas of other agencies. One solution discussed by the Council included locating an inner-city grocery store at the World's Fair site. This solution failed, because it did not get political and community support.

The opportunity for collaboration between local government and agencies in the food system can result in impacts when direction in decision-making is given by a Council that has a historical understanding of the food system and can estimate impacts of policy changes and legislation. Many of the problems and solutions identified by the Council came from agencies and representatives that had served in the community for long periods of time. Food policy councils need the information and an understanding of the concerns of other agencies. The Food Policy Council held a hearing in year 5 to gather advice from other agencies about how to improve the food system. This

collaboration directed the work plan of the Council for the following year and influenced the work plans in future years.

McCann (21) suggests that organizations working collaboratively progress through three phases: 1) problem setting, or the identification of stakeholders and identification of the issues which bring them together; 2) direction setting, or developing a sense of common purpose and goals; and 3) structuring. The meeting minutes documented that the Knoxville Food Policy Council focused its efforts in key areas throughout the 10 year period and on, for example, the Senior Nutrition Program and child nutrition. They also showed that the Council did not organize its activities in the stepwise manner identified by McCann (21), and instead completed them collectively throughout the 10 year period. Despite this lack of sequential order to its activities, the analysis revealed that the Council did attempt to influence decisions of legislators and agencies related to the food system and, therefore, may have had an impact on access to food. For example, in the minutes it was reported that the Mobile Meals Program Director (22) attributed an increase in the number of program referrals to the Council's advice to Knoxville residents. Similarly the minutes reported that an increase in the number of school breakfast programs was due to the efforts of the Council. Unfortunately, program information to confirm these reported increases in referrals and number of programs and their relationship to Council efforts was not available. Analysis of the minutes suggests, however, that it was possible that the Council had an impact due to its level of involvement in these issues and reported increases as described in the minutes (23). It is unfortunate that quantitative data to better support these claims was not available.

## CHAPTER 5

### Limitations

A limitation of using content analysis is that it does not identify cause and effect. The data simply describe what occurred. Program documents are subject to a variety of measurement errors, most notably researcher bias. In this analysis errors in measurement were minimized by completing reliability checks and verifying data. Results of the primary researcher's analysis were compared to two sets of independent researchers throughout the study. Another limitation of the study was that 13% of the monthly meeting minutes were not available. However, it also was not clear whether a meeting was held during these months and, therefore, no minutes would be generated. The lack of these monthly meeting minutes did not appear to effect the described flow of information about an issue. The content of the minutes or description of the monthly meetings also presented a limitation. At times the words used to describe Council activities did not make complete sense or did not allow the researchers to understand what was happening in the minutes, although this occurred only randomly and did not represent a significant amount of data. Minutes that were not written clearly were re-read several times in context to try and clarify the meaning. However, if the meaning could not be clarified, coding of this data block did not occur.

## CHAPTER 6

### Conclusions

Content analysis of minutes of the Knoxville Food Policy Council's monthly meetings showed that it addressed five major issues in the food system, described here by rank order of level of activity: access to food, nutrition education, quality of food, economic vitality of the food industry, and the environment. The Council involved itself in needs assessment for 50% of its total involvement in all activities. Informal monitoring, part of the process of needs assessment, accounted for 30% of the Council's involvement in all activities. The Council did fulfill its roles as outlined in the resolution establishing the Council.

This analysis also revealed that the Council appeared to influence decision-making regarding access to food. These decisions had the potential to increase local access to food on a long-term basis. The minutes provided some evidence that decisions were implemented by other agencies, or at least that Council members reported that decisions were implemented by others. For example, it appeared that the Council influenced decision-making to extend bus routes to encompass a greater number of grocery stores. All of these recommendations and improvements could have offered immediate and long-term solutions to improving access to food, but without quantitative data from programs and services, it is difficult to determine what actually occurred and the degree to which it can be attributed to Council influence.

It is clear that food and nutrition issues were incorporated into the agendas of some local government and agencies. However, the challenge for food policy councils is to keep these issues on their agendas. To do this, food policy councils need to continue

to monitor and evaluate the food system, evaluate legislative and policy changes in a historical context, and revise policy recommendations, if needed.

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## APPENDICES

### Appendix A

#### Research and sub-research questions

Research and sub-research questions used in analyzing the content of the monthly meeting minutes of the Knoxville Food Policy Council.

1. How did the Food Policy Council identify and clarify food-related problems?
  - a. What type of food and nutrition-related problems were identified by the Food Policy Council? Food Policy Council members? Other agencies?
2. How did the Food Policy Council conceptualize problems and solutions?
  - a. What processes were used to identify problems and solutions to the problems?
3. How did the Food Policy Council decide to adopt a recommendation?
  - a. What kinds of solutions/recommendations were decided upon by the Council to resolve problems? By Food Policy Council members? Other Agencies?
  - b. Which Council members provided these solutions?
  - c. What problems did the Council not provide solutions for? Why? What were their common concerns?
4. What were the Food Policy Council's components for implementation plans?
  - a. What were the processes or strategies of the Council to implement recommendations?
  - b. What were the expectations of the Council about implementation of the recommendations?
  - c. How precise or elaborate was the plan for implementation?
5. How did the Food Policy Council evaluate the implementation process?
  - a. What was felt to be the impact of implementation of a solution by the Food Policy Council members? By others reporting to the Council?
  - b. How did the Food Policy Council follow up on solutions/recommendations which other agencies or organizations implemented?
  - c. What changes were made as the result of a decision?
  - d. What did the Food Policy Council do if the solution/recommendation that was implemented did not resolve a problem?



## Appendix C

### Meeting times of the Food Policy Council, 1982-1992.

#### Meeting times of the Knoxville Food Policy Council July, 1982 - June, 1992.

July 19, 1982	June 12, 1986	June 5, 1990
August 26, 1982	July 17, 1986	July 3, 1990
September 30, 1982	August 26, 1986	September 11, 1990
October, 28, 1982	September 18, 1986	October 8, 1990
December 16, 1982	October 16, 1986	November 26, 1986
	November 13, 1986	
	December 18, 1986	January 24, 1991
January 19, 1983		February 28, 1991
February 16, 1983	January 29, 1987	April 1, 1991
March 24, 1983	February 18, 1987	May 6, 1991
May 5, 1983	March 10, 1987	June 17, 1991
June 16, 1983	April 23, 1987	July 4, 1991/August 29, 1991
July 21, 1983	May 21, 1987	September 26, 1991
September 22, 1983	June 25, 1987	October 24, 1991
October 20, 1983	August 20, 1987	November 25, 1991
November 17, 1983	November 19, 1987	
	December 3, 1987	January 17, 1992
January 19, 1984		March 16, 1992
February 23, 1984	January 27, 1988	April 20, 1992
March 15, 1984	March 3, 1988	May 20, 1992
April 19, 1984	March 23, 1988	June 22, 1992
May 17, 1984	April 28, 1988	
June 21, 1984	June 16, 1988	<b>No meetings held</b>
August 2, 1984	July 26, 1988	November, 1982
September 20, 1984	September 8, 1988	April, 1983
October 18, 1984	October 4, 1988	August, 1983
November 15, 1984	October 20, 1988	December, 1983
	December 1, 1988	December, 1985
January 17, 1985		August, 1990
March 7, 1985	February 3, 1989	December, 1990
April 18, 1985	April 6, 1989	
May 16, 1985	May 4, 1989	<b>Other conferences; no</b>
June 20, 1985	June 1, 1989	<b>minutes</b>
July 25, 1985	July 10, 1989	December, 1984 - news
August 22, 1985	September 6, 1989	conference
September 19, 1985	October 31, 1989	December, 1991 -
November 14, 1985	December 5, 1989	inner-city tour
January 17, 1986	January 2, 1990	
February 20, 1986		

March 20, 1986  
April 24, 1986  
May 15, 1986

February 13, 1990  
March 13, 1990  
May 1, 1990

**No minutes available**

July 19, 1984  
February 14, 1985  
October 31, 1985  
July 30, 1987  
September 24, 1987  
April 10, 1987  
February, 1988  
May 26, 1988  
August, 1988  
January, 1989  
August 3, 1989  
November, 1989  
April 10, 1990  
March 28, 1991  
February, 1992

Appendix D  
First level codes and frequency counts

	YEAR									
	1	2	3	4	5	6	7	8	9	10
ADV COMM	4	9	10	12	14	5	6	5	1	4
ADV COMM FXN	6	1	2	9	7	1	3	5	4	
AGFPC ROLE	6	2	1	1	5	2	2	8	1	3
AGID PROB	7	11	5	5	3	2	17	36	17	7
AGID SOLN	2	5	8	3	11	4	10	39	3	20
AG LETT	3		1	1			2	3	13	2
AG PRES	3									
AG RESULT	1					1				
ASSIST	1						2	1		
CAC BELIEF	1									
CAC ROLE	1	4	1		6	3	4		1	4
CFAC	19	4	5	9	7	9	20	10	17	9
CHAMBER ROLE			1	5						
CHILD FEEDING					5					
CHRONIC DISEASE	1									
CITIZEN INPUT			3		1			8		
CITY COUNCIL		6	5	2	2	10	2	8	8	15
CTRANS	8	5	1	2	3	1		5	7	
DATA	12	13	7	12	12	12	17	63	26	17
DCED FXN		3								
DCED ROLE	4	5					2		1	4
DISAG	2	4	1					3	2	
ECON DOWN	9	10	13	9	15	12	10	12	6	17
ECON EQUAL				1						
ECON ≠	5	2	3	1	4	1	3	1	1	1

Appendix D continued

	1	2	YEAR			6	7	8	9	10
			3	4	5					
ECON UP	15	15	11	8	9	2	9	16	3	6
ECON UP DOWN	4									
ENVIRON						8	3	1	3	2
EXPECT			1	1	1	1	1		1	
FOCUS ID			1							2
FOOD DOWN			2		1			3	1	
FOOD UP	2	7	7	3	5	4	2	2	4	7
FPC ADM	44	56	59	55	69	53	54	53	68	112
FPC ID PROB		2	2	1	7	5	2	6	7	6
FPC ID SOLN	2	4	3	4	10	4	19	12	15	26
FPC IMP	4	4					2			
FPC LETT			1							
FPC MEMIDPROB	3	3		2	2		5	39	8	13
FPC MEMIDSOLN	15	3	2	4	9	2	9	46	2	24
FPC MEMMOD		1								1
FPC RESULT	7	12	4		2	7	3	9	6	9
FPC ROLE	5	10	16	17	20	11	2	8	2	14
F/R PROB		3	10	9	15	1	5	3	3	6
GARDEN	5	1		14	7	4	1		2	5
HEALTH		3								
HOUSING	3	4			1		1		1	9
HUNGER		4	2							
ID PROB	2	2	1		2		1	8	3	
ID SOLN								9		
INFOGATH		3	1	3	1	1	15	12	10	9

Appendix D continued

	1	2	YEAR			6	7	8	9	10
			3	4	5					
INFOSHARE	9		2			3	1	8	3	6
INTERACT	11	23	7	6	5	15	11	15	13	7
KCDC ROLE		5	7	1	1	1			1	
KTRANS ROLE	2					1			8	1
LAND	3			2	4	1	1	1		
LANDNONFOOD	5	4		12	4	1	2			1
LANDPRES	2	3		2	1		1	1		1
LETT	10	3	5	7	6	5	4	7	2	8
MAYOR	3	9	7	2	9	11		12	9	11
MAYOR FPC ROLE			1							
MAYOR ROLE							2	6		
MAYOR SOLN			1							
MPC PLAN	3	10		3			1	3	1	
MPC ROLE	11	13		4	4	8		3	6	
NEW FPC	1	3	5	9					2	
NUTR EDUC/INFO	2	5	5	10	8	14	7	33	15	12
PART	2		1		1	4	2	5	1	
PFAC	9	12	9	3	6	11	10	6	4	2
POT ASSIST							4	2	2	
POT INFOGATH			2							
POT INTERACT	7	11	6	6	8	11	16	3	5	11
POT INFOSHARE	7	2	6			3	4	5	1	1
POT PROB	1	1	1						1	
POT PUB		1	3	2	4	6	3		2	9
POT RESOURCE	5	7	2	8	10	6	5	3	5	6

Appendix D continued

	YEAR									
	1	2	3	4	5	6	7	8	9	10
PTRANS	16	2	1	1	1	3	4	2	4	2
PUB	1	2	3		6	3		4	3	
QUALITY	6		1	4	3	6	6	6	5	9
RESOURCE	27	13	7	16	10	17	3	21	22	13
RESULT	1	1				3		3	1	1
SCHL BREAK/FD	6	5	3	1	2	18	3	17	7	7
SPECIAL INTEREST	1	1					1			
STAFF	5	7	4	2		4			3	3
TOUR	5									6

## Appendix E

### Reliability checks

Inter-coder reliability checks for level 1 coding.

<u>Line numbers</u>	Percentage Inter-coder reliability <sup>1</sup>
1 - 300	62, 65, 79
894 - 1203	80
1795 - 2083	60, 77
2676 - 2964	66, 74
3561 - 3735	74
4218 - 4525	72
5298 - 5542	75
6159 - 6455	74
7050 - 7279	73
8802 - 9217	81
9799 - 10171	86
10708 - 10946	89
11571 - 11845	90

$$^1 \text{ reliability} = \frac{\text{number of agreements}}{\text{total number of agreements + disagreements}}$$

Intra-coder reliability checks for level 1 coding.

<u>Line numbers</u>	<u>Percentage Intra-coder reliability<sup>1</sup></u>	
	Researcher A	Researcher B
1 - 467	79	85
1490 - 1909	79	86
2926 - 3414	85	88
4446 - 4973	93	88
6007 - 6455	91	92
7466 - 7938	93	90
8939 - 9451	92	94
10424 - 10946	95	93

$$^1 \text{reliability} = \frac{\text{number of agreements}}{\text{total number of agreements + disagreements}}$$

## Appendix F

### Level two pattern codes and definitions of both sets of researchers

Level two pattern codes developed by the first two researchers compared to the second set of three researchers.

#### Two researchers

#### Three researchers

##### *External*

- |    |  |   |
|----|--|---|
| 1. | Needs Assessment<br>Informal monitoring<br><br>Problem identification<br>Solution identification<br>Tracking results | Needs Assessment<br>Data/Research/Information<br>Gathering/Formal monitoring<br>Problem identification<br>Solution identification<br>Lack of results/Results/Assessment<br>of effectiveness |
| 2. | Advising   | Advising/Information sharing and<br>advocacy  |
| 3. | Creating awareness of the Council  | Accountability/Marketing/<br>Awareness/Recognition/Mentoring  |
| 4. | Requests for Advice  | Networking/Citizen Input/<br>Partnerships/Cooperation/  |
| 5. | Policy Development   | Finalize comprehensive food<br>policies/Assurance/Policy<br>development   |

##### *Internal*

- |    |                                |  |
|----|--------------------------------|--|
| 6. | Planning area of work emphasis | Work program/Planning/Doing/Lack<br>of agenda/Organizing |
| 7. | Internal Procedures            | Housekeeping   |

##### *Issues*

- |    |  |  |
|----|--|--|
| 1. | Access to Food                           | Access to Food/Land<br>Preservation/Downtown food stores |
| 2. | Nutrition Education                      | Nutrition education                                      |
| 3. | Quality                                  | Food inspection  |
| 4. | Strengthening economics of food industry | Food industry focus                                      |
| 5. | Environment                              |  |

The three researchers said:

**Needs assessment** - They felt the Food Policy Council spent an overwhelming amount of time in the needs assessment/discovery process. Needs assessment was divided into three steps: information gathering, problem identification, and solution identification. They felt there was a lack of results due to different agendas by other agencies. They attempted to assess their effectiveness.

**Infosharing** - The Council began creating awareness about food-related problems in Knoxville. They advised decision-makers and advocated for changes to the food system for Knoxville residents especially the inner-city residents by letter writing, phone calls, media and networking in meetings.

**Awareness** - The Council created awareness about themselves perhaps to show their accountability and to gain recognition.

**Networking and Partnerships** - They felt that other agencies bought into the Food Policy Council's ideas and were in support of the Council. This networking allowed the Council to obtain ideas on how other agencies perceived the food system.

**Policy development** - The Council developed a set of comprehensive food policies and other policies.

**Work program** - It was noted that the Council began to develop a plan of what the Council should work on in 1983.

**Housekeeping** - They felt this incorporated the many tasks the Council had to perform with regards to the rules of order and of planning meetings.

**Access to food** - They identified that the Council was working on issues about food and its physical relation to people. They were addressing how people could access affordable food. Several issues related to access to food included: land preservation, community gardens, food facilities, farmer markets, equity in pricing, and raising money.

**Nutrition education** - Nutrition education was noted to be an area of interest the Council was working on.

**Food inspection** - A food inspection was discussed.

**A food industry focus** - It was noted that the Council began to take a focus of interest in the food system.

Definitions obtained by first set of researchers of the pattern codes are displayed here.

1. **INFORMAL MONITORING/information gathering** – Information about the Knoxville, Tennessee and United States food system which was collected and disseminated on a ongoing basis and provided to or collected by the Food Policy Council (FPC). This information assisted the FPC in understanding the players and processes of the Knoxville food system.

Note: information was collected from books, letters, directories, tours, journal articles, studies, reports such as the UT community assessment, maps, slides, newspaper articles, direct verbal contact at meetings and dinners, presentations, hearings, and demonstrations.

2. **PROBLEM IDENTIFICATION** – Identifying problems that were affecting or would impact the Knoxville food system by the FPC.

Note: Advisory committees were formed to identify problems and advise the FPC on what the problems were and possible solutions to the problems.

3. **IDENTIFICATION OF SOLUTIONS AND RECOMMENDATIONS** – Identifying solutions to problems in the Knoxville, Tennessee and National food system by the FPC and development into recommendations to other agencies.
3. **ADVISING/influencing agency agendas** – The processes by which the FPC attempted to get their recommendations on the agendas of other agencies. These recommendations about the Knoxville, State and National food system, as identified by the Knoxville Food Policy Council, were communicated to the community, other agencies and the Mayor through the media, letters, indirect and direct verbal contact at meetings, and signs.
4. **CREATING AWARENESS OF THE COUNCIL** – Information provided to people or organizations outside of the FPC about the purpose and responsibilities of the Knoxville Food Policy Council that allowed for greater recognition of the Council.
5. **INTERNAL PROCEDURES** – The formalized mechanics of conducting meetings, selecting members for the Council, and advisory committees. The rules of order and procedures for conducting meetings and selecting members, advisory committee members and officers.
6. **REQUESTS FOR ADVICE** – The advice FPC was offered as a result of requests from FPC of other agencies.
7. **RESULTS** – Identification of results of work FPC had been doing to change a process or event in the food system

8. PLANNING FOR FPC WORK AREAS – Outlines of what the intent of FPC activities would be either at the next meeting or in the future (i.e. for the next year).

## Appendix G

### Decision-making rules for matrices.

1. Level one codes and meanings were reflected on by the two researchers.
2. Level one codes were checked to see if they covaried in some sort of patterned way.
3. If the level ones code fit a pattern, then they were given a pattern code. The category codes were given succinct definitions.
4. If any level one code did not fit a pattern, then all the pattern code definitions were reviewed and either broken into separate pattern codes or the definition was extended to include the code. All pattern code definitions were reviewed again to see if they were succinct and different.
5. Data blocks of level one coding within the data set then were reviewed to see if they fit the pattern codes and definitions. If they did not appear to fit the pattern code and definition, then they were either analyzed to see if they fit a different pattern code or if a pattern code could be expanded. Then all pattern codes were reviewed for their succinctness and if they were different.

## Appendix H

### Final level one codes

Level one codes identified by the set of two researchers at the conclusion of the ten year period of Knoxville Food Policy Council's work and definition of terms. These codes were used to assist in identifying the pattern codes and matrix development.

**FPCADM:** Administration of/by the FPC; At the beginning and end of minutes, minutes are approved and meeting set up for the next month. Any function related to the organization of FPC; includes pictures and statistics.

**STAFF:** Discussion of staff available and responsibilities to FPC; STAFF is FPC

**KCDC ROLE:** Any function of KCDC related to FPC

**MPC ROLE:** Any function of MPC related to FPC

**KTRANS ROLE:** Any function of KTRANS related to FPC

**CAC ROLE:** Any function of CAC related to FPC

**DCED ROLE:** Any function of DCED related to FPC

**CHAMBER ROLE:** Any function of the CHAMBER related to FPC

**MAYOR:** Any function of the MAYOR related to FPC

**CITY COUNCIL:** Any function of the City Council related to FPC

**FPC ROLE:** What FPC thinks their role is

**AGFPC ROLE:** What another agency thinks FPC role is

**MAYORFPC ROLE:** What mayor thinks FPC role is

**CAC BELIEF:** Statement of belief in FPC; buy into FPC

**MPC PLAN:** Planning function of MPC unrelated to FPC

**DCED FXN:** Function of DCED unrelated to FPC

**ADVCOMM FXN:** Function of the advisory committee; Advcomm is NOT part of FPC

**ADV COMM:** Anything in relation to adv. comm current or future

**ID PROB:** A problem that has been identified from unknown origin

**AGID PROB:** What another agency thinks is a food/nutrition-related problem

**FPCMEMIDPROB:** Any food/nutrition-related problem identified by a FPC member; not a consensus

**FPCID PROB:** Any food/nutrition-related problem identified by a consensus of FPC members

**CITIZEN INPUT:** Input from citizens on a food-related problem

**FOCUS ID:** Discussion on identifying the focus of a pre-FPC recommendation

**FPCREC:** A recommendation or suggestion given by the FPC to other agencies (Action-oriented)

**FPCIMP:** FPC takes responsibility for doing the action

FPCMEMSOLN: A solution to a problem identified by a FPC member; not a consensus  
FPC SOLN: Consensus on a solution to a problem by FPC  
AG SOLN: A solution to a problem identified by other agencies  
MAYOR SOLN: A solution to a problem identified by the MAYOR

FPCMEMMOD: Any modification discussed and initiated by FPC member after initiation of an action

RESULT: Any result that is attributed to any other agency than FPC

FPC RESULT: Any result that is attributed to a FPC action; positive or negative result

EXPECT: Any expectation about a result or recommendation or action by the FPC or a member

POTASSIST: Assistance offered by the FPC to others; don't know what kind of assistance

ASSIST: Assistance given to another agency by FPC

POTRESOURCE: Any info (resource) that will be gathered; in the process of being developed

RESOURCE: Any outside information related to food; info which is gathered by other groups includes books, directories, studies, reports, maps, and slides.

INFOGATH: Any additional resource information requested by FPC or other agency

POTPUB: Any potential action that will promote actions of the FPC through the media (TV, radio, newspaper, articles, and presentations)

PUB: Any action that promotes the actions of the FPC through the use of the media (TV, radio, newspaper, articles, and presentations)

POTINFOSHARE: Any potential announcements to be transmitted to the community through the media

INFOSHARE: Any information or food-related announcements transmitted to the community through the media. No recommendations given. Passing on of information.

POTINTERACT: Any potential meetings/ tele or communications from FPC/MEM/Wilson

INTERACT: Other interactions outside of FPC meetings by FPC members or staff of FPC. Includes meetings/tele/dinners. Initiated by FPC or other agency

LETT: Letters written by FPC to other agencies for any reason

AGLETT: Letters written by other agencies to FPC

TOUR: Tour by FPC of food facilities

CFAC: Current food facility

PFAC: Potential food facility

CTRANS: Current way/means of transporting food

PTRANS: Potential way/means of transporting food

LAND: Land currently being used in relation to food

LANDNONFOOD: Land currently being used in non-food way

LANDPRES: Land issues related to preservation of land for food use (agriculture)  
F/R PROB: Any problem (hunger, under or over consumption, chronic disease, malnutrition) related to dietary intake and its results  
GARDEN: Anything related to gardening  
SCHFDSER: Anything related to school lunch and school breakfast  
NUTRED/INFO: Anything related to nutrition education or information  
ECONUP: Profit or gain for the other person: NOT good for citizens or FPC  
ECONDOWN: Loss in dollars for the other guy: GOOD for citizens or FPC  
ECON=: Inequity in economic issue related to food  
ECON=: Equality in economic issues related to food  
HOUSING: Anything in relation to housing: HUD not included  
FOOD UP: An increase in the food supply in Knox County  
FOODDOWN: A decrease in the food supply in Knox County  
QUALITY: Quality in relation to food system  
ENV: Minimize contamination of natural resources in the environment (water, land, etc.)

NEWFPC: Development of a new FPC

PART: Participation in a food related program such as federal food programs and churches

DATA: Raw data

SPEC INT: Special interest on FPC members

DISAG: Disagreement (differing opinion) between 2 groups/ind/ind vs. group

POT PROB: A potential food-related problem between FPC and others (group or individual)

#### Definition of Terms:

CAC = Community Action Committee

CHAMBER = Knoxville Chamber of Commerce

DCED = Department of Community and Economic Development

FPC = Knoxville Food Policy Council

HUD = Housing and Urban Development

KCDC = Knox County Developmental Corporation

KTRANS = Knoxville Metropolitan Transportation System

MPC = Metropolitan Planning Commission

## YEAR 1

## YEAR 2

### ACCESS TO FOOD

Ensure that an adequate and nutritious food supply is available to all citizens

- (42-45) MPC identifies tasks FPC can be involved in with land use
- (50-53) Loss of federal money result in less transportation services
- (84-95) A panel of people discuss their food supply programs
- (112-115) Tour of the inner-city fd stores taken: prices on items noted
- (119-145) World's Fair Site - Is a food facility a possibility?
- (163-182) MPC sees FPC involved with ID of where people are food
- (194-200) Since last FPC meeting 8 new schools with breakfast
- (213-215) Council staff met with transportation unit of MPC & KTran
- (216-219) Emergency Food Helpers (EFH) directory given to FPC
- (231-239) FPC members to meet with World's Fair Site developers
- (240-243) Problem carrying groceries to home. White Stores & carts
- (245-252) Letter written to MPC to support agricultural land preserv.
- (259-264) Relationship with peoples habits, transportation and food
- (275-276) MPC preparing map of bus routes and larger grocery stores
- (278-280) Letter about school breakfast had not been sent. Needs to
- (287-290) CAC report on food supply needs in inner-city given out
- (305-311) Bob trying to meet with World's Fair Site developers
- (320-322) Whites Stores hopes to sell grocery carts at cost
- (324-342) Media statement about school breakfast shared with FPC
- (370) UT students note lack of participation in existing food prog
- (379-399) FPC members meet two inner-city grocery store owners
- (405-415) FPC looks at map developed by MPC)
- (437-445) Bob trying to meet with World's Fair Site developer. Letter
- (482-483) Grocery carts to be sold at White Stores
- (484-492) Letter sent to Ktrans to extend bus route
- (522-525) FPC members to attend public forum on Worlds' Fair Site
- (542-552) Announcement of grocery bus and no response on letter
- (567-568) Info sheet on food programs given to FPC members

- (980-984) CAC staff presents report on community garden program
- (1058-1068) TN Dept of Educ. considering waivers on school breakfast. FPC letter recommending consideration sent
- (1069-1072) Grocery bus volunteer has resigned. CAC to follow up
- (1073-1077) Hunger Awareness month. Involvement encouraged
- (1172-1179) A micro-market is to open at Isabella Towers
- (1180-1182) Weigel's to open a store near Fort Hill
- (1183-1187) Members given info about TN Hunger Coalition
- (1207-1212) Mayor's office recognizes work on school breakfast, bus line, and grocery bus
- (1268-1271) Hunger Task Force appointed by President
- (1272-1280) Mary Nelle shares information about Commodities Progr
- (1329-1358) Rezoning Morningside land area. FPC want food source
- (1372-1373) Money may be available from Community and Economic development for emergency food source or other sources
- (1374-1377) Report that CAC has distributed 2,856 food packages
- (1407-1431) FPC looks at Morningside area study about food source
- (1467-1472) FPC supports State legislation to mandate school breakfast
- (1506-1512) Morningside continues to be zoned for a grocery store

YEAR 1

YEAR 2

**ACCESS TO FOOD**  
Cont.

(570-573) Report on Green Thumb Program  
 (585-594) FPC attends forum on World's Fair Site  
 (596-604) Grocery carts are available at White Stores  
 (617-619) Letter about grocery bus sent to social service agencies  
 (623-631) State legislature considering passage of school breakfast rule  
 (633-635) Community gardens brochure given to FPC members  
 (691-702) Speaker from grocery bus speaks to FPC  
 (704-712) School breakfast rule fails in education committee try budget committee  
 (7130717) Second Creek development and need grocery store  
 (723-737) No response from Ktrans. FPC to attend K-Trans meeting  
 (799-827) K-Trans speaks at FPC meeting about bus route changes  
 (829-836) Discussion on grocery bus publicity  
 (837-841) Knoxville school breakfast discussion at State meeting  
 (879-881) Results of a food drive reported

(1519-1524) Lett sent State leg enc schl brkfst mandate  
 (1525-1539) FPC attempts to refine and prioritize CED activities improving food supply and distribution -report  
 (1563-1574) SHARE di shares into at FPC meeting  
 (1580-1585) FPC may want to consider getting sales tax on food removed if State does not  
 (1606-1615) Food facility study on Morningside area  
 (1622-1626) Members encourage FPC to contact State legislators about school breakfast  
 (1628-1635) Letter from FPC given to MPC on ag. Pres.  
 (1636-1641) CED hearing - comments on food stores  
 (1642-1652) K-trans not extend routes Budget crisis talk  
 (1655-1661) Lett to Governor to suppt removal food tax  
 (1662-1665) Dixie shares hunger in Knox County info  
 (1666-1673) Article on groceries leaving inner-city shared  
 (1696-1700) Praise sch fd ser dir support child nutrition  
 (1717-1762) Morningside str own question on groc need  
 (1771-1773) Child leg. does not pass  
 (1779-1785) Hunger task force to visit Knosville June  
 (1813) Vending machines need nutritious food  
 (1832-1837) Morningside area plans include food store  
 (1838-1851) Hunger task force visits Knoxville

Strengthen the economic vitality of the private food industry

(531-535) Loss of farmland in county a problem. To ease the problem need to make agriculture more profitable. Marketing outlets for farm produce limited. City owned farmer's market in downtown would be helpful

(1462-1466) Small loans may be available for food store improvements

**QUALITY**  
Improve the quality of food available to all citizens

(89-90) Bob Wilson speaks to FPC on differences in prices and quality in the inner-city food supply

**YEAR 1**

**YEAR 2**

**NUTRITION EDUCATION**  
Encourage citizens to accept and consume nutritious food

(371-373) UT students note problems with combating nutrition misinformation, need to decrease dietary factors for heart disease, and need to decrease incidence of obesity  
(377) UT students note need for inservice and preservice training for health and para-professionals

(1228) Nutrition and Health Advisory Committee compliments weight control program for Police Department  
(1548-1562) FPC to work on nutrition education in the schools  
(1701-1707) Mary Nelle talks to school board about need for nutrition education program in schools  
(1808-1812) FPC member concerned younger people do not know how to cook. Schools and community centers are places to learn  
(1814-1818) Groceries are places where people can learn nutr info

Minimize food-related activities which degrade the natural environment;

**POLICY DEVELOPMENT**

(60-62) An orientation workshop on the dynamics between the food system and the Council's task of developing public policies  
(154-160) Representative from MPC suggests how FPC can be involved in planning in the General Development Plan 2000  
(313-318) FPC member to work with MPC on policy sections of Plan  
(453-460) FPC members developing policies for Plan 2000  
(462-467) 5th goals added to FPC goals  
(537-540) No further progress on amending General Plan 2000  
(606-615) Proposal on 11th section on food be added to Plan 2000  
(718-724) FPC members to discuss amendments to Plan 2000  
(771-798) FPC discusses amendment to Plan 2000

(924-947) FPC provided MPC with prop for chges Plan 2000  
(1017-1027) New revisions to FPC's proposal sent to MPC  
(1106-1138) Prop add pres MPC staff. Awaiting acceptance  
(1212) Mayor recognizes work on fd plan with MPC Plan  
(1237-1246) FPC proposal to be presented before MPC soon  
(1299-1318) MPC makes one revision to FPC proposal. F/U  
(1394-1406) FPC mem attends MPC workshop on proposal  
(1513-1518) Second workshop of MPC revisions made to proposal  
(1616-1626) Latest corrections of proposal shared with FPC members  
(1768-1770) FPC proposal going before MPC in June  
(1824-1831) MPC accepted FPC proposal. Goes to City Council

### YEAR 3

### YEAR 4

**ACCESS TO FOOD**  
 Ensure that an adequate and nutritious food supply is available to all citizens

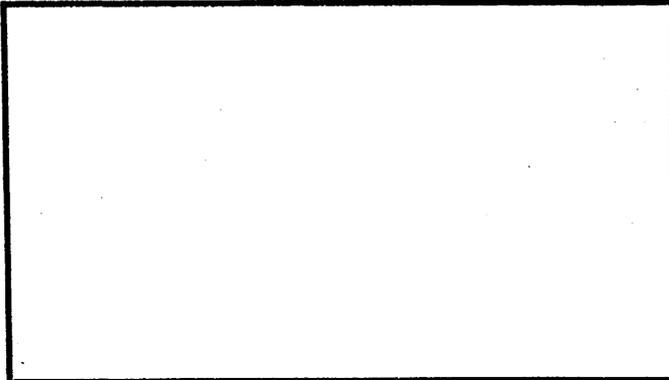
- (1875) List of accomplishments noted to media included expansion of school breakfast
- (1881-1891) Phase I of Morningside development included finding a grocery to locate in this area
- (1950-1963) Weigel's meets with citizens to get input access to food
- (1964-1966) Dixie attends legislative tax forum rec. removal of tax
- (1973-1979) Hunger Awareness month. Food drive and dinner event
- (2008-2015) Ktrans bus route extension occurred. FPC wants further
- (2016-2021) Weigel's plans to meet with citizens again
- (2050-2058) Review of the update on Poverty in Knoxville/County
- (2059-2064) Statistics gathered about hunger shared with FPC
- (2113-2118) Hunger Awareness dinner event focus on hunger
- (2130-2146) Review of federal budget for food programs.
- (2147-2151) Senate failed to increase funding for school breakfast
- (2189-2196) Continued efforts to determine if store goes in Morningside area
- (2198-2208) Strong push to have removal of sales tax law repealed
- (2227-2235) Mayor does not agree subsidizing a grocery store at Morningside is a good idea. Move the location
- (2248-2254) Recent cuts to Senior Nutrition Program reported
- (2262-2270) Letters sent to legislators encouraging pass of school breakfast mandate
- (2298-2305) Morningside area without grocery due to high cost of rent. Isabella Towers food store to be improved
- (2351-2363) Weigel's opens at Fort Hill. Mgr. sensitive to public
- (2365-2368) Proposed federal cuts will affect Knoxville. Letter opposing cuts sent
- (2369-2371) If sales tax put back on food it will hurt elderly and poor
- (2372-2372) No new change with school breakfast legislation
- (2464-2469) FPC hearing to possibly center around improving food supply in inner-city

- (2711-2713) Main issue areas for the FPC Hearing to explore include poverty and food access; a familiar issue to FPC in past
- (2727-2732) One area of interest for FPC Hearing includes "Efficiency of the Food Distribution System - Transportation, Logistics, and Cost Factors; FPC inner-city fd availability
- (2733-2753) Long-range issues FPC considers looking at include regional food production, other methods of food production, water supply issues, and civil disasters and food supply
- (2795-2800) Concerns about the County Farmer's Market are stated
- (2803-2807) Response received to letters sent to legislators on child nutrition programs
- (2808-2814) US Conference of Mayors report on cuts chld nutr prog
- (2833-2835) Report on Hunger Awareness 1985 events
- (2844) FPC staff recommended to MPC committee to consider the problem of inner-city food
- (2847-2851) Prime Minister of Health concern with loss of arable land and endangering world food supply
- (2922) Discussion on Hunger Awareness 1988 of planned activ.
- (2950) 20% of FPC time should be spent on land resources
- (2954) 20% of FPC time should be spent on hunger and poverty
- (2988-2999) Two FPC members to work on Land resources; monitoring development on food production sites
- (3019-3023) Bill Powell will work on Hunger and Poverty
- (3070-3086) Report about community gardens and how to improve
- (3087-3099) Buzz Johnson will closely look at zoning class and fd impl
- (3121-3129) TN Governor's report for 2000 TN residents will want to improve their individual food supply
- (3140-3143) Reagan proposal will cut Extension 60% & urban garden
- (3144-3147) New bill in state legislature will add more child to scl brfst if passed
- (3148-3153) Hands Across America to raise money for hungry in
- (3246-3251) Possibility of canning sessions in community gardens
- (3317-3387) Panel of speakers speak on food concerns of low income
- (3395-3397) Report on Hands Across America

YEAR 3

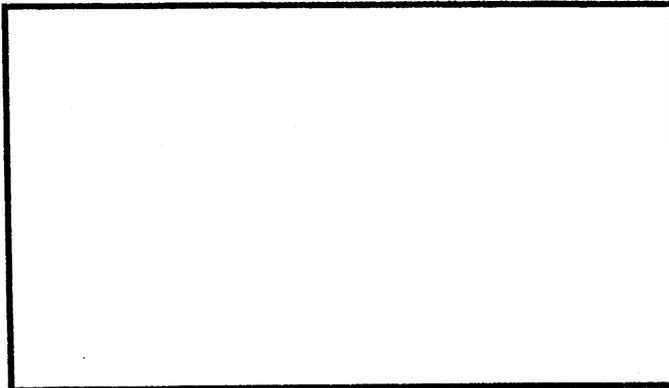
YEAR 4

Strengthen the economic vitality of the private food industry



(2650-2657) Trying to put together a food industry advisory committee and gather data to show how important food industry is to Knoxville economy  
(2714-2716) Area of interest for the FPC Hearing includes maintaining the economic strength of local food industry; FPC is beginning to explore  
(2714-2717) industry; FPC is beginning to explore  
(2950) 20% of FPC time should be spent on development of the Food Industry  
(2986-2987) Bob and staff to work on development of the fd industry  
(3049-3063) Follow up from hearing on food processing business in a minority community; FPC work on direct marketing  
(3465-3466) Booklets on direct marketing were distributed to FPC

QUALITY  
Improve the quality of food available to all citizens



(2701-2703) Bob reaffirms goal of FPC to identify and formulate policy that maintains and improves the quality of Knoxville's food supply  
(2717-2720) One issue as area of interest for FPC Hearing includes "Food as an Element of Quality of Life in Knoxville"; new area of interest

YEAR 3

YEAR 4

**NUTRITION EDUCATION**  
Encourage citizens to accept and consume nutritious food

- (2213-2216) TN Health Style 1985 - aimed to increase awareness of health and nutrition issues
- (2289-2296) Information given to area residents on nutrition at Health style 1985
- (2420-2430) Special recognition awards suggested to institutions that promote consumption of low-calorie foods
- (2440-2453) TN Retail grocers Association Food Show indicated less interest by public with nutrition. More people eating out and convenience food
- (2601-2603) Greater Knoxville Nutrition Council plans to do community-wide effort to reduce overweight and promote health

- (2721-2722) One issue of interest for the FPC Hearing includes "Role of the Food System in Maintaining Health and Good nutrition for Knoxvilleians; familiar area to FPC
- (2833-2834) FPC recommended MPC committee consider nutrition education
- (2952) Twenty percent of FPC time should be spent on nutrition education
- (3000-3015) Dixie to work on nutrition education area
- (3404-3409) School Health Grant Proposal letter of support sent - nutrition education and weight management

Minimize food-related activities which degrade the natural environment: limit wasteful use of scarce resources needed for future food production and distribution

**POLICY DEVELOPMENT**

- (1875-1876) List of accomplishments noted to the media included addition of food policy to General Development Plan
- (1892-1985) FPC amendment was added by City Council. County Commission now to consider
- (2396-2419) FPC accepts policy goal of Nutrition and Health Advisory Committee

- (2658-2661) Chamber of Commerce reviewing MPC Plan. MPC subcommittee on Food, Health, and Social Services to have workshop
- (2703-2704) Bob Wilson reaffirms FPC goal to recommend policy to appropriate governmental agencies
- (2758-2760) FPC should use results of Hearing to formulate policy and advise

YEAR 5

YEAR 6

**ACCESS TO FOOD**  
 Ensure that an adequate and nutritious food supply is available to all citizens

- (3519-3524) FPC thanks legislators for votes to strengthen food supply
- (3529-3552) 4420 children being fed at Summer Feeding Program - CAC business report on food program
- (355-3558) FPC follow up on school breakfast waivers - FPC to be notified if hearings are held
- (3666-3669) Report by Dixie on presentation of schld serv supervisors gave to Community and Nutrition Task Force. List of schools showing lunch and brfst status requested
- (3670-3674) Problems with transportation in Head Start Program which may be affecting participation
- (3725-3729) Only major food store near Montgomery Village closed. Study done on shopping patterns here
- (3735-3742) Inner-city food supply is getting worse days Dixie
- (3756-3758) Two Knoxville College students to survey inner-city food stores under CAC and MPC
- (3813-3820) Report on the results of a food drive by EFH
- (3822-3829) Comprehensive report by VISTA worker on food buying clubs. Reminded FPC this is a goal to support these
- (3946-3957) Report by MPC on the bus route changes for accessibility to food stores by city buses. FPC recommends KTrans and MPC seek input from FPC when considering changes

- (4670-4679) World Food Day Teleconference for mayoral candidates
- (4732-4737) FPC committee to meet with White Stores to keep store going on Gay Street
- (4738-4742) Plans made for FPC to address hearing of Downtown Task Force. Goal for a retail store be included
- (4747-4751) Inner-city food store survey by Nutrition Options Against Hunger (NOAH). Teams priced items in seven food stores
- (5386-5404) White Stores leaving inner-city. FPC meets with them to better determine problems with running a store in city
- (5405-5412) Downtown plan was amended to include a statement of need for a primary food service downtown
- (5414-5442) Report by CAC transportation unit on grocery shopping help
- (5507-5513) County Commission approves Downtown plan
- (5580-5593) Knox County Framer's Market being considered by Director of Development for Knox County. Wants letter of support from FPC
- (5594-5602) Knoxville receives grant to increase WIC, school breakfast and summer feeding program for children participation

YEAR 5

YEAR 6

**ACCESS TO  
FOOD**

(4111-4126) Bus routes change. Buses go to White Stores Gay St.  
 (4131-4140) Inner-city food store study almost done Compare 1979  
 (4283-4285) FPC to speak at schl brd meeting support schl break.  
 (4292-4293) Inner-city food store study complete  
 (4301-4303) Bus route changes postponed. To explain to public  
 (4305-4324) Discuss structural problems related to hunger with EFH  
 (4354-4380) Green Thumb program cut unless Congress okay  
 (4380-4386) SICK fights funding cuts to commodities  
 (4407-4409) FPC speaks at school board supports school fd. Prog.  
 (4455-4464) Letter sent to school board to increase school break.  
 (4484-4512) FPC needs to present to Downtown Task Force  
 (4513-4520) FEMA money for food packages  
 (4573-4577) Report for Downtown Task Force complete  
 (4602-4603) Extension book provided where to pick food

(5685-5695) A grocery store is included in a proposal to Housing and Urban Affairs in McCalla area  
 (5706-5713) A produce truck is visiting inner-city housing projects but no one knows who it is  
 (5714-5730) A study is done to look at markets for businesses which could be more profitable. May not have reached inner-city poor  
 (5734-5740) Mechanicsville group is eligible for grant from Housing and Urban Development. Grocery store or small farmer's market considered

**Strengthen the  
economic vitality  
of the private  
food industry**

**QUALITY  
Improve the  
quality of food  
available to all  
citizens**

(3862-3872) A community leader expresses concern about few low-calorie choices at breakfast meetings of elected officials

YEAR 5

YEAR 6

**NUTRITION EDUCATION**  
Encourage citizens to accept and consume nutritious food

(4225-4246) Calorie Conscious Consumer Awards in progress. A subcommittee of Knoxville Nutrition Council or review nutrition education information that can be sent to institutions, grocery stores and restaurants upon request. Buffet menu selections to be aimed at caterers  
(4285-4291) FPC to talk at School Board meeting about the importance of nutrition education  
(4411-4421) FPC recommends full-time nutrition educator position in school system at School Board meeting. Also letter recommending this happen sent from FPC  
(4452-4454) Letter to be written f/u School Board meeting for support of a nutrition educator

(4614-4636) Nutrition and Health Advisory Committee reports on progress of Feature Lighter Fare project. Encourages caterers to include low-calorie choices at meetings  
(4680-4684) Media conference for CCCA well attended  
(4708-4721) Mailouts to participants in CCCA included information on promoting low-calorie foods  
(5306-5318) Proposal received from FSRMC to continue CCCA. A draft of the letter to caterers and brochure on Lighter Fare project reviewed  
(5604-5612) In the Community Food and Nutrition Grant there is a plan to obtain funding for a traveling nutrition education show and video

Minimize food-related activities which degrade the natural environment; limit wasteful use of scarce resources needed for future food production and distribution

(5528-5534) FPC sends letter to Knox County Solid Waste Authority For support of recycling and cogeneration in solid waste planning

**POLICY DEVELOPMENT**

(3958-3978) Presentation by Bob Wilson on comprehensive food policy approaches  
(4072-4082) FPC discusses current policy concerns. FPC needs to think locally and act globally

(4685-4694) Bob Wilson reviews documents for Comprehensive Food Policies. Plans to reword and review before next meeting  
(4726-4731) No action taken - Comp. Fd. Policies. Next time will do.  
(4762-5148) At retreat FPC works on Fd. Policies in detail

YEAR 7

YEAR 8

**ACCESS TO  
FOOD**

Ensure that an adequate and nutritious food supply is available to all citizens

- (5776-5784) Bob presented report to NOAH on Urban store
- (5785-5819) Discussion on Mechanicsville Redevelopment. FPC to send a letter of support for recommercialization grant application and support an Urbanstore
- (5982-5989) CNFG money to be extended 6 months to develop a model for a successful inner-city food retail store
- (5994-5999) Letter of support for Knox County Farmer's Market
- (6018-6023) Dixie to send Mayes grocer info on community food resources available through EFH
- (6141-6152) Dixie reports to EFH about using vouchers at inner-city food stores for emergency food after meeting with Mayes
- (6172-6185) Discussion on FEMA vouchers to be used in inner-city store. Money approved for FPC to set up system of issuing vouchers
- (6236-6250) Bob reports progress on developing a model inner-city store. F/U planned with other grocers
- (6442-6446) Bob is conducting a feasibility study of an Urbanstore with Mechanicsville Community Development Corp. Survey studying shopping habits of residents
- (6447-6452) Dixie recommends FPC members write Superintendent and School Board now to support every school -breakfast
- (6463-6469) Sarah Scott speaks in front of Senator Gore to discourage cuts to Food Stamps
- (6485-6526) Bob discusses feasibility study for Grocery Store in Mechanicsville. Proposal to continue work completed
- (6573-6576) Recommendation when pursuing concept of Urbanstore to know the proposed effects on existing businesses
- (6590-6594) Dixie reports that every school will have school breakfast next year. Result of FPC plus others
- (6595-6610) Bill Powell does subjective evaluation of inner-city stores. Inner-city has higher prices and lower quality

- (6813-6818) Report on emergency food vouchers to be used in Mechanicsville area
- (6819-6824) A letter of support was written for the Knox County Farmer's Market which included the concept of a satellite market for inner-city needs
- (6839-6972) Report on meals-on-wheels and congregate meals
- (7031-7043) School breakfast being served in 86 of 88 schools. Continue to encourage breakfast in all schools
- (7342-7380) FPC work on expanding funding for participation in meals-on-wheels with newspaper
- (7382-7414) FPC member attends school board meeting to increase school breakfast to all schools. FPC members try to visit feeding sites
- (7433-7436) Report by consultant of FPC on identifying food facilities and which serve nutritious food.
- (7437-7487) FPC compared studies of food facilities done by MPC and Knoxville College students. Food facilities change considerably year to year
- (7602-7765) Reports about WIC, Headstart and school food service
- (7944-7970) Report of results of meals-on-wheels publicity
- (8009-8023) Discussion of proposed cuts in funding for child nutrition programs
- (8129-8156) Discussion of a grocery or produce market downtown after interest from a City Councilman
- (8157-8174) Discussion on the Shop and Ride programs and grocery carts. Ktrans wants to promote Shop and Ride program

YEAR 7

YEAR 8

ACCESS  
TO FOOD

(8201-8204) Bob Wilson continues to work on which properties are city owned to advise about food availability  
(8417-8421) Letter sent to Senators about not cutting funds for school food service  
(8616-8649) Wilson reviews completion of report on city properties and food facilities

Strengthen the economic vitality of the private food industry

(7804-7899) Discussion with grocery store owners about how the government affects the food industry and economic issues

QUALITY

Improve the quality of food available to all citizens

(5821-5838) Solutions to Issues of Concern to Knoxvilleans (SICK) are concerned about food quality in inner-city. FPC to invite Mayes grocer to FPC meeting  
(6015-6017) CAC puts together meeting with Mayes and community after FPC meeting to address mutual concerns  
(6611-6628) Bradley's Market in Mechanicsville wants to remodel according to Bill Powell  
(6689-6699) Bob met with Mayes to explore ways FPC can assist improvements in Mayes store. Conditions have improved at store with community approval

YEAR 7

YEAR 8

**NUTRITION EDUCATION**  
Encourage citizens to accept and consume nutritious food

- (6120-6132) Discussion on Calorie Conscious Consumer Award and how to improve knowledge about the awards.
- (6196-6209) Gary Young from FSRMC plans follow up events at grocery stores for the CCCA. Nutrition and Health Advisory Committee looking for a sponsor for the Awards in 1989
- (6210-6222) Letter of support by FPC sent for Betsy Speer's proposal to decrease fat and increase fiber to reduce cancer to the National Cancer Institute
- (6452-6453) Dixie recommends FPC members send Superintendent and School Board letters supporting nutrition educator in schools
- (6527-6585) Weight Watchers is coordinating CCCA in 1989 with NHAC and FPC. Awards to be County-wide to include more stores

- (6761-6777) Connie Whitehead from Weight Watchers reports to FPC on how the CCCA are going so far
- (6973-7016) Report from Connie on progress of the CCCA
- (7128-7191) Discussion of nutrition education activities for children and the importance of good nutrition
- (7192-7263) Final evaluation report on CCCA from Connie
- (7415-7423) Discussion on progress with getting a nutrition educator in the schools
- (7499-7513) Comments given on federal food labeling
- (7747-7757) Nutrition educator position still not funded
- (7971-8001) Attempts to get nutrition educator position funded fail
- (8219-8317) Report on nutrition guidelines for day care facilities
- (8389-8416) Further discussion on how to get a nutrition educator
- (8422-8430) NET grant could fund nutrition educator
- (8431-8448) CAC working on traveling nutrition education show
- (8534-8569) Report by UT student on evaluation of CCCA
- (8570-8575) Mary Nelle asks an FPC member to summarize child nutrition information obtained so far

Minimize food-related activities which degrade the natural environment; limit wasteful use of scarce resources needed for future food production and distribution

YEAR 7

YEAR 8

POLICY  
DEVELOPMENT

(6226-6229) The newly printed booklet for use in identifying the policies adopted by the FPC will be discussed at the FPC annual meeting

YEAR 9

YEAR 10

**ACCESS TO FOOD**  
Encourage citizens  
to accept and consume  
nutritious food

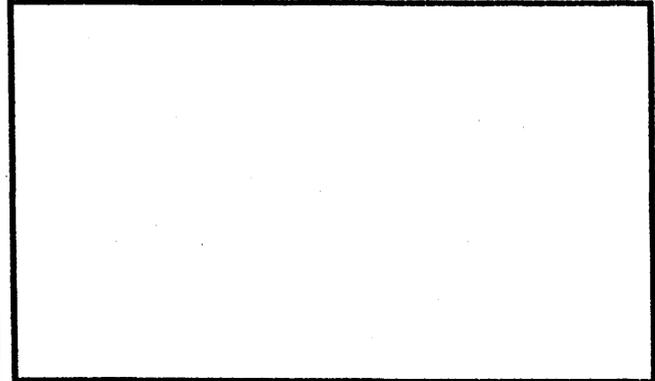
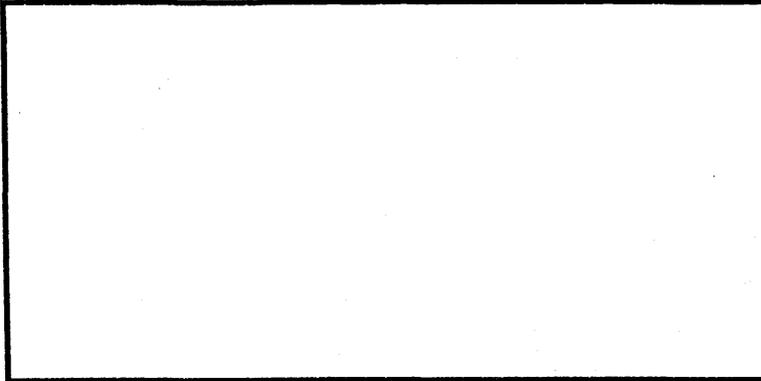
(8764-8769) Ktrans considering bus route changes and FPC concerned how these would affect the food supply  
 (8771-8789) Discussion on the fight to keep inner-city groceries going. Community Development Corp. using an FPC study for a proposal for Mechanicsville  
 (8809-8853) KTrans comes to speak on bus route changes  
 (9025-9033) Suggestions to Mayor's office to do more about hunger. Recommended to talk with EFH  
 (9035-9039) KTrans to make changes in north, south, and southwest  
 (9134-9144) Knox County Farmer's Market to open in 1991  
 (9161-9180) Two more inner-city food stores close.  
 Recommendation to send a proposal to Knoxville Partnership for Neighborhood Improvement for a city-wide workshop to address the decline in stores  
 (9214-9276) Proposal to be sent to include FPC as the organizer of the steering committee working with Design Center in Community Development Block Grant  
 (9288-9293) Green Thumb seed distribution has begun  
 (9294-9306) UT intern to look at grocery stores in inner-city, what they sell. transportation to stores, and the bus system  
 (9478-9587) Final grant request submitted for the inner-city workshop  
 (9526-9598) Report by intern on inner-city grocery stores  
 (9599-9654) KTrans comes to discuss bus route changes  
 (9804-9861) President of EFH comes to review this program with FPC  
 (9863-9904) Discussion on the inner-city workshop - any other funding sources and who would participate  
 (9905-9912) Bus route changes discussed and grocery carts

(10067-10078) Intern from UT could be available to work on proposed idea of finding out where industries and people are  
 (10079-10099) Inner-city workshop is going to happen in Spring of 1992  
 (10140-10155) EFH is meeting with Senator Sasser to make Knoxville a Hunger Free Zone  
 (10237-10250) Hike Against Hunger  
 (10257-10264) CAC awarded federal money to expand community gardens  
 (10354-10438) SHARE director update FPC on SHARE services  
 (10491-10503) Report that Hunger Hike is a success  
 (10658-10677) Tour of inner-city food stores is set up for FPC  
 (10682-10694) Kroger plans to have grocery carts for sale 15.00  
 (10724-10746) Impressions of inner-city food store tour offered by FPC members  
 (10971-10998) Workshop on inner-city food set for April 14th.  
 (11022-11032) EFH made presentation to City Council and County Commission showing food given out is increasing.  
 FPC supports Hunger Free Zone  
 (11033-11044) Noted some school buses were not getting students to school in time for school breakfast. FPC staff to see which schools were having the problem and have a meeting with school administrators  
 (11045-11076) Report from CAC on Green Thumb Program  
 (11156-11159) Meeting set with FPC and Mr. McCook on bus scheduling  
 (11164-11261) Report on how the Inner-city workshop went  
 (11508-11514) Plan meeting with Mr. McCook on bus schedule  
 (11608-11633) Meeting set to discuss what the problems are in getting children access to school breakfast - is it bus schedules or not a long enough period of time to eat?  
 (11660-11680) Knox County Farmer's Market opens  
 (11693-11697) A proposed committee to look at results of inner-city workshop on food stores is discussed

YEAR 9

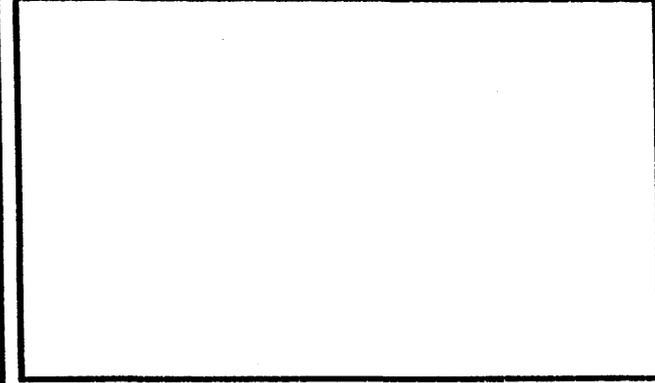
YEAR 10

Strengthen the economic vitality of the private food industry



**QUALITY**  
Improve the quality of food available to all citizens

(8779-8781) ABT is encouraging food store managers to make their stores cleaner and to make available better quality food  
(9365-9468) Environmental Health Services from Health Department comes to speak on regulations governing grocery stores



YEAR 9

YEAR 10

<p><b>NUTRITION EDUCATION</b> Encourage citizens to accept and consume nutritious food</p>	<p>(8752-8762) Now is the time to request that a nutrition educator be included in budget                  (8854-8871) Commitment from Director of Knox County Schools that a nutrition educator could start in one year                  (8972-8979) Two FPC members to make comments on new nutrition labeling initiative                  (9095-9105) Nutrition labeling recommendations made on food labels but not on restaurants                  (9501-9515) FPC to set up a meeting with several official to get funding for nutrition educator in budget                  (9721-9780) Meeting held to find out if nutrition educator position would be funded</p>	<p>(10325-10340) Healthy Start program can be used in schools. Letter of support to fund nutrition educator position and efforts to make food more nutritious and fat free.                  (10504-10514) Letter sent to School Superintendent praising efforts to lower fat content of meals and encourage funding of nutrition educator                  (11082-11096) Schools are ready to fund nutrition educator position. Letter of support rec. to be sent to Superintendent                  (11152-11155) Letter of support sent to Superintendent for nutrition educator position funded</p>
<p>Minimize food-related activities that degrade the natural environment; limit wasteful use of scarce resources needed for future food production and distribution</p>		
<p><b>POLICY DEVELOPMENT</b></p>		<p>(11339-11507) Review of Comprehensive Food Policies developed by FPC previously.</p>

## YEAR 1

### INFORMAL MONITORING

- (65-66) Dixie Petrey encouraged members to read a book written by Bob Wilson on food distribution/consumption before next meeting
- (84) Dixie Petrey presented a panel talking on fd. prog
- (96-970) After hearing about the food supply, the Chair suggested the Council tour some inner-city facilities
- (112) Chairman McNeil stated the tour had been most interesting
- (196) Chairman McNeil asked Dixie to go over the information presented by the staff about the school breakfast program
- (266) Council members were given info about the inner-city tour
- (275) Dixie reported the transportation unit of MPC preparing a map of bus routes and grocery stores
- (278) Dixie reported eight new schools added school breakfast
- (287) Dixie gave members a CAC report called Food Supply
- (320) Rita Shoffner reported White Stores to sell carts to assist transporting groceries home
- (357) Mary Nelle was asked to share info on a recent UT study
- (469) Mary Nelle introduced Buzz Johnson from MPC to discuss process of identifying food stores in Knoxville
- (516) Dixie handed out letters from Fairfield Communities about redevelopment of Worlds Fair Site
- (567) Dixie handed out info on food programs
- (570) Dixie reported on distribution of seeds and garden supplies
- (623) Dixie report on State legislators and mandates on scl breakfast
- (634) Dixie reported on the Community Garden Workshop
- (649) Overview presentation of Dept of Comm and Econ Devel
- (691) Dixie introduced Charlotte Hinton from grocery bus and updated FPC about this service
- (704) Dixie reported on school breakfast legislation
- (732) Dixie reported no response from K-Trans
- (753) Dixie announced workshop for hungry
- (837) Dixie reported on school breakfast expansion
- (842) Chairman gave mem article on qual inner-city grocery store

## YEAR 2

- (981) Slide presentation from Community Gardens
- (1058) Dixie reported on school breakfast waiver requests
- (1069) Dixie report lett of resign from groc bus volunteer
- (1075) Members were given an information sheet listing goals of Hunger Awareness and results.
- (1078) Dixie gave mem newsletter from TN Hgr Coalition
- (1165-1167) Dixie reported EFH and SHARE sponsoring Hunger Awareness Month
- (1173-1182) William Powell explained a micro-market to open at Isabella Towers and Weigel's to open at Fort Hill
- (1183) Members given info on TN Hunger Coalition
- (1237) Frank Turner informs FPC about MPC workshop
- (1257-1258) Dixie gave mem copy of Response to Urban Hunger
- (1268) Mary Nelle explained that a National Hunger Task Force is holding hearings/shared info. on comm program
- (1374) Dixie states that CAC distributed food packages
- (1506) Chairman reported that MPC requested a zoning change in Morningside area.
- (1563-1579) Director of SHARE introduced by Chairman McNeil discussed SHARE.
- (1580) Bob Wilson reported on vote to remove TN State sales tax from food
- (1622) Dixie updates group on school breakfast mandate
- (1636) Crawford reported CED held five hearings and several comments made about food stores in inner-city
- (1655) Dixie report bill to rem State sales tax on fd passed.
- (1662) Dixie gave members a newspaper article on exodus of groceries from inner-city
- (1666) Dixie gave mem info data on fd, hgr and poverty
- (1771) Dixie reports Chld Nutrition Bill did not pass legislature(1779) Dixie announced group of physicians to visit Knoxville on hunger.

## YEAR 1

### ADVISING

(187-188) After the presentation, Chairman gave members a copy of the letter giving specific suggestions about planning that effects the food supply which was drafted by staff to be sent to MPC. First, seconded and passed motion approved to send letter

(213-215) Dixie announced staff had met with individuals from the transportation unit of MPC and K-Trans. report at next meeting

(245-250) Council discussed presentation by Frank Turner and a letter was first, seconded and passed to support pres agri land.

(315) Bob Wilson stated Council will work with staff to go over plan and make recommendations for rewriting MPC GDP

(379) Doug Coulter told Council about meetings he and Dixie had with grocery store managers

(436) Bob Wilson drafted a letter on behalf of FPC to Fairfield communities because of no response

(524-525) Dixie was asked to represent FPC at public forum on World's Fair Site Development

(527) Dixie gave out a letter prepared for MPC supporting preservation of agricultural land. First, seconded and passed.

(591) Ruth suggested FPC members contact members of design team to include FPC reps in plan for the World's Fair Site Devel.

(710) Dixie showed everyone a letter from FPC sent to state legislators about Child Nutr. Law. Dixie asks everyone to contact their legislators.

(718) Wilson reported on amendment to MPC Plan and this put on agenda of next FPC meeting and FPC to review changes to Plan.

(753) Dixie announced article written on a qual inner-city groc store

(792) Ruth sugg MPC look at FPC Plan/comment by next meeting

(799-801) Doug Coulter reported he and Buzz Johnson had attended last K-Trans meeting and requested bus routes be extended.

(813-814) Dixie requested that K-Trans continue to work to include other groceries in their routes (at a meeting with K-Trans)

## YEAR 2

(1304) At MPC meeting FPC staff made suggestions in wording to maintain ideas of FPC proposals in MPC revisions

(1319) McNeil and Traylor reported on Annual report presentation

(1332) Dixie attended Morningside renewal rezoning meeting and requested that any rezoning still allow for a staple food source for residents.

(1419) Bletner stated her concerns for a staple food source in Morningside area at MPC meeting

(1508) McNeil presented concerns of FPC at MPC rezoning of Morningside area meeting

(1519) Dixie reported a letter was sent to legislators on School Breakfast Mandate

(1540) Chairman reported mailing of annual report

(1628) Dixie reported letter from FPC to MPC concerning preservation of agricultural land given to those at workshop

(1642) Dixie reported attending K-Trans Board meeting to encourage extension of bus line

(1699) Traylor spoke at Knoxville City School Board meeting and highlighted the importance of nutrition education in school.

(1838) Dixie reported that Traylor, Coulter, and Wilson were speakers at Physician Task Force meeting.

## YEAR 1

## YEAR 2

### CREATING AWARE- NESS OF COUNCIL

(78) Chair McNeil showed members a copy of newspaper article and television reports on appointment of FPC  
(494) New York City requests info on FPC and this was sent

(1082) TN Hunger Coalition wants info on Knoxville FPC. Other in the State are looking at Knoxville as leaders in starting other local FPC's.  
(1257) Knoxville's FPC in report tp US Mayors  
(1378) Info about Knoxville's FPC requested from New York City and Kingston, TN

### IDENTIFI- CATION OF SOLUTIONS

(234) Chairman McNeil appointed Doug Coulter Bob Wilson to meet with Fairfield Communities to express the importance of a grocery store at the World's Fair Site.  
(306) Bob Wilson trying to meet with Fairfield Communities to request food be part of the Worlds Fair Site Redevelopment  
(400-403) Dixie suggested it might be a good idea to affirm a quality inner-city store. Council agreed that she should bring a draft statement to next meeting for consideration  
(411) Dixie showed Council a map of food stores on bus routes. Extension of the bus routes would give residents access to improved food supply  
(466) After reviewing the Council's goals, Fred Pickett made a motion that a fifth goal be added - to minimize natural environmental degradation and the use of scarce resources

(1066) Suggested that a letter be sent to Commissioner to carefully review requests for School Breakfast Waivers  
(1077) Members were asked to encouraged their schools and where they shop to be involved in Hgr Awareness  
(1353) Traylor asked if grocery store could be placed in Morningside area.  
(1356-1358) McMillan made a motion that FPC staff should prepare a proposal to KCDC about Morningside area. Fred Pickett seconded  
(1401-1405) Buzz Johnson gave FPC members a copy of revision of GDP food section. He is going through and adding food policy to sections where it is appropriate  
(1426) Bletner suggested transportation into Morningside area needs to be reviewed  
(1458) FPC staff has drafted an outline of improvements of Food distribution system to be sent to CED  
(1467) Dixie explained School Breakfast Mandate and FPC asked that a lett be sent to comm chair in support of leg  
(1507) McNeil presented concerns about zoning change in Morningside area. Proposal from FPC to be presented to KCDC at next board meeting

YEAR 1

YEAR 2

IDENTIFYING SOLUTIONS

(1513) Fred Pickett reported on second workshop of MPC. MPC staff wrprking to include food in other systems of General Development Plan  
(1526) Dixie explained that Bob Wilson has prepared a draft on recs after a CED meeting  
(1558) Rec a comm from FPC work on nutrition educator position  
(1585) Wilson suggested removal of food sales tax at city/county level  
(1655-1655) Fred Pickett moved and Traylor seconded lett sent to Governor about removing sales tax from food

RESULT

(1210) FPC helped expand school breakfast, extend bus lines, grocery bus, MPC Plan with FPC policies  
(1400) MPC had totally accepted concepts of FPC  
(1824) Johnson reported that MPC amended its GDP to include food issues in health and social services

IDENTIFICATION OF PROBLEMS

(115) Pickett surprised to see 75 cent variation price inner-city food  
(121-124) Bob Wilson asks if there will be food fac downtown  
(151) Frank Turner from MPC notes that food is not listed in the long-term planning related to food.  
(164) Frank Turner from MPC notes that consideration of where food facilities, transportation and people are needs to be considered.  
(219) Dixie provides Council with book on Emergency Food Helpers. Hunger Awareness Month sponsored by SHARE.  
(262) Inadequate access to quality affordable food in inner-city  
(321) Difficulty in transporting food home for people without cars

(1060) Some schools do not want to have school breakfast and requesting waivers  
(1276) McMillan notes cuts in food stamps have decreased amounts of food sold in certain areas of city  
(1419) Concern by Bletner that there is not a food source in Morningside area  
(1804) Pickett said hearing showed there were hungry in our city because the hungry spoke.  
(1805) Fat people can be malnourished

YEAR 1

YEAR 2

REQUESTS FOR ADVICE

(42) Turner IDed a # of planning tasks FPC could involve itself in  
(127-128) Flash Gray from World's Fair Site attended FPC meeting to discuss how FPC could have input into the MPC Plan  
(147-148) Frank Turner from MPC came to describe to the Council how they can effect planning related to food  
(183-184) Frank encouraged the Council to be involved with the MPC in planning as it relates to food  
(819-820) K-Trans rep sugg FPC lobby food stores Shop/Ride Prog

(924-947) Wilson report MPC response to staff on FPC amendment  
(1135) Turner sugg FPC publish prop to MPC as a doc  
(1223) NHAC reported to FPC  
(1799) NHAC reported to FPC.  
(1548) NHAC brought to the attention of FP staff that City Food Service Manager is retiring; now is time for nutrition education.

INTERNAL PROCEDURES

(347-353) Chair asked Wilson to present plan for appt of NHAC.  
(725-727) Wilson submitted staff recommendations: Chair of NHAC  
(848-849) Petrey and Wilson working on Chair NHAC  
(853) McMillan motion for proposed list of people to be asked to serve on NHAC committee  
(860) Work on budget to further develop advisory committees  
(866-872) Discussion on membership and election of officers

(898-899) Doug Coulter reported on behalf of the nominating committee to nominate Chair and Vice-Chair  
(908) Pat Snyder discusses intent of NHAC Committee  
(959-978) Wilson asked for Council input for staff wrk in 1984  
(986-990) Speaking for staff, Council has no rules of procedure; staff recommended Council consider appt of committee to develop bylaws.  
(1047-1049) Chair appoints Fred Pickett and Doug Coulter to serve on bylaws committee. Asked report in 1 mo  
(1100) Coulter reported for bylaw comm. Bylaws 1st, 2nd and passed  
(1450) Prop changes to FPC brochure by Bob Wilson  
(1477) Chair met with Nutr Proj Comm of CAC to describe FPC  
(1370-1371) FPC members identified areas of interest to them for next years activities. More discussion in February  
(1441) FPC staff to meet with Ed McMillan and food industry FIAC.  
(1494) McMillan and others met re: FIAC.  
(1601) Traylor states comm to work on school/nutr educ. Petrey Chair  
(1858) Dixie reminded FPC members request for S from City Council

YEAR 3

YEAR 4

INFOR-  
MAL  
MONITO  
RING

(1881) Dixie reported on last KCDC board meeting. Study of Morningside area has been done.  
 (1950) Thompson reported on meeting about Morningside area  
 (1967) Traylor announced May Queen Wilson is new City Food Services Director  
 (1973) Dixie announced plans for Hunger Awareness Month  
 (2008) Dixie reported on extension of West Haven bus line  
 (2016) Dixie showed slides of meeting between Morningside and Weigel  
 (2050) Dixie reviewed updated poverty in Knoxville report  
 (2059) Dixie distributed packets of info on hunger in the area  
 (2088) Sue Ambler presentation on poverty in Knoxville  
 (2113) FPC members attend Hunger Awareness Dinner  
 (2130) Dixie reviewed legislation passed at the last federal congressional session  
 (2189) Dixie read letter from KCDC Development about Morningside Development  
 (2198) Dr. Mac Simpson discussed removing State sales tax from food. Group decided to wait for more info before letter is sent to legislators  
 (2217) Dixie distributed copies of an article on the Food Factor  
 (2248) Traylor gave info on cuts to Senior Nutrition  
 (2262) Dixie presented info about current school breakfast legislation  
 (2298) Powell reported Morningside area would be office and warehouse space and update of food store at Isabella Towers  
 (2351) Pickett reported he, Bing, and Thompson attended opening of Weigel's store  
 (2364) Dixie highlighted proposed cuts in federal food programs  
 (2440) McMillan reported on success of TN Retail Grocers Assn.  
 (2502-2591) Dixie introduces Mary Queen-Wilson to present of school food service

(2803) Traylor reported on letters received from elected officials on child nutrition programs  
 (2808) Traylor reported on US Conference of Mayors meeting  
 (2833) Dixie gave members schedule of Hunger Awareness Events  
 (2836) Buzz Johnson reported on Chamber of Commerce meeting and relation to FPC  
 (2847) Traylor told about Prime Ministers speech and loss of arable land  
 (2905) Dixie handed out copies of Municipal Food Policies published by US Conference on Mayors  
 (2918) Dixie appointed to Coalition for the homeless  
 (2922) Info on Hunger Awareness activities given to FPC members  
 (3073) Pat Bing shares info on Seattle composting program  
 (3087) Johnson explained the LESA process  
 (3121) Dixie reported on meeting with the Governor on TN outdoors  
 (3133) US Conference of Mayors to hold Hands Across America(3140) Reagan proposes budget cuts  
 (3144) Dixie described progress of TN school breakfast will increase participation  
 (3148) Hands across Knoxville  
 (3185) Petrey reported on training event at US Conference of Mayors  
 (3253) Traylor states major problems related to health and US goals set  
 (3295) Traylor gave members copy of UT student health risk assessment  
 (3317) Powell introduced panel of speakers on Food Concerns of Low Income families  
 (3391) Petrey distributed copies of Application for USA for Africa

YEAR 3

YEAR 4

**INFORMAL  
MONITORING**

**(3395) Bing described Hands Across America Event  
(3440) Bing dicusses Hands Across America Event  
(3454) Bing reviewed status of Community Gardens  
(3457) Bing reported on current nutrition legislation  
(3465) Booklets on direct marketing sites were distributed  
to FPC members**

YEAR 3

YEAR 4

ADVISING

(1964) Dixie reported she spoke at tax reform hearing to support removal of sales tax on food  
(2015) K-Trans has been asked to extend the bus line even further  
(2176) Release of NHAC report to public. Dixie distributed info. packets on NHAC report at news conference.  
(2227) FPC members meet with Mayor and recommend grocery store in Morningside area.

(2803) Letters to officials child nutrition progr annual report mailed  
(2843) FPC recs to Chab of Comm nutr educ and inner-city food  
(3073) FPC suggested public composting prog to comm gardens  
(3096) FPC recs to MPC to monitor zoning/dev at food prod sites  
(3121) Petrey and Johnson spoke at Governor's Conference gardens  
(3404) McMillan sent a letter in support of FPC to Mary Duffy at Health Department for weight management on rec, of NHAC

ID SOLUTIONS

(1891) Bletner suggests volunteers man a donated space in Morningside Wood development  
(2401) FPC recommends encouraging public and private agencies to assure food is available and initiate community-wide efforts to reduce overweight and promote health

(2828) Traylor suggests UT test soil for lead  
(3014) Look into grant supporting nutrition monitoring  
(3053) Look into Gary Gordon's idea of food processing business  
(3059) Wilson suggests Ag Ext look at food sold by direct marketing  
(3092) Look at Ag Adv Comm for urban vs. rural  
(3249) Bing recs community canning sessions  
(3424) Dixie suggests writing letter to leg. About food funding  
(3459) Bing suggests position paper on nutrition leg and voting records of legislators.

YEAR 3

YEAR 4

PLANNING  
FPC AREA  
OF WORK  
EMPHASIS

(2209) Wilson discussed staff recommendations for 1985 FPC work plan  
(2256) Bob reviewed proposed calendar of activities for FPC. To be discussed at next meeting  
(2309) Wilson reviewed materials on work plan for next year  
(2325) Wilson asked members to seriously consider a retreat or hearing. McMillan made motion for a hearing and Churchill seconded  
(2457) Wilson shared his thoughts on hearing. Staff to continue plans for the hearing  
(2598) Dixie reviewed status of FPC work plan. Copy of report attached

(2643) Wilson and Bing share plans for hearing  
(2650) Wilson reported on work to set up FIAC committee  
(2684-2771) Bing and Wilson report on plans for the hearing  
(2770) Chairman McNeil directs staff to plan hearing and present plan at the Sept. meeting  
(2781) Bing shared info on hearing plans  
(2867-2900) McMillan called on Dixie to lead a discussion on the hearing with discussion about what FPC should do next.  
(2909) Wilson reports on progress made with FIAC  
(2948) Members decided FPC should involve itself in 5 concerns  
(2978-3023) Members of staff decided what areas they were able to work in from results of the retreat  
(3025) Wilson presented ways to evaluate progress as an organizations and help direct FPC in making choices about the kind of organization the want to be. He suggested that FPC include one topic for a portion of three meetings during the year  
(3049) Wilson responded to the ideas of the Council on FIAC  
(3107-3119) Meeting scheduled planned for month to month April to September  
(3169) FPC members vote on 1986 work plan in formal method

YEAR 3

YEAR 4

<p><b>INTERNAL PROCEDURES</b></p>	<p>(1897) Dixie passed out new FPC brochures          (1915) Traylor announced Mayor's appointment of Pickett, Bletner, and Traylor for another 3 year term          (1918) Coulter announced nomination of Traylor for Chair and McMillan for Vice-Chair. Seconded by Pickett          (2046) McMillan presented McNeil with gavel. Outgoing Chair          (2069) Doug Coulter resigns          (2124) FPC members to recommend a person to fill Coulter's position          (2454) Traylor appointed Pickett and McNeil for nominating committee and to report at June meeting with nominees for Chair and Vice-Chair          (2594) Pickett and McNeil served as nominating committee. McMillan for Chair and Pickett for Vice-Chair. Election held at annual meeting          (2612) Bletner announced her retirement from FPC. McNeil term expires at next meeting. At July meeting Mayor's new appointee be announced</p>	<p>(2627-2634) Bletner/McNeil retiring and Short/Teague coming on          (2637) McMillan was elected Chair and Pickett elected Vice-Chair          (2657) Wilson met with McMillan to develop potential members to FIAC committee          (2663) Traylor announced Haughton to Chair NHAC          (2669) Gavel presented to Traylor for participation and leadership          (2791) Dixie presented slide show for orientation of new members          (2899) Dixie recs members/staff meet in Jan and skip Dec. meeting          (3243) Wilson reported he, McMillan and Short agreed to tentatively Co-Chair FIAC committee</p>
<p><b>REQUESTS FOR ADVICE</b></p>	<p>(2585) Mary Queen Wilson, Food Services Director for Knox County Schools, recommends FPC could promote school breakfast and lunch</p>	
<p><b>IDENTIFICATION OF PROBLEMS</b></p>	<p>(2147) Federal food stamp program cut. Cuts people on food stamps and money for upkeep of food service equipment in school breakfast          (2364) Dixie highlights federal fund cuts that will affect local level          (2370) If State sales tax put back on food, it will affect senior citizens          (2399) FPC recognizes malnutrition - over and under consumption of food</p>	<p>(2812) Traylor notes ¼ eligible for food stamps not receiving. Emphasis on elderly not children          (3303) Need to have more monitoring and info available in Knoxville          (3430) Need to have a new food bank facility</p>

YEAR 3

YEAR 4

RESULT  
S

(1875) Increase in school breakfast and GDP with FPC rees.  
(1892) GDP with FPC rees complete

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INFORM  
AL  
MONITO  
RING

YEAR 5

(3486) Wilson, McMillan, Short reported on first FIAC meeting  
(3529) Dixie reported on CAC food program  
(3524) Bing reported on community gardens  
(3540-3548) Dixie reported on commodities, FEMA, Food & Nutr Prg  
(3553) Dixie reported FPC to be notified if school board holds hearings on school breakfast waivers  
(3572) Dixie reported on NHAC work  
(3577) Short reported on FIAC second meeting  
(3666) Dixie gave report on school food service programs  
(3670) Henry gave report on Headstart  
(3676) Bing passed out report on nutrition and food legislation  
(3702) Wilson reported on FIAC meeting  
(3725) Dixie reported for Powell Hunger and Poverty concerns  
(3748) Bing reported she will attend Amer Comm Garden Assn  
(3753-3758) Dixie reported on 3 students activities on studying local food supply  
(3813) Bing gave report on Hunger Awareness  
(3822) Student Kwapinski reported on food club buying  
(3830) Bing reported on legislation in Congress  
(3856) Johnson reports two students to update food store report  
(3889) Wallin and Speer present NHAC annual report  
(3936) Short reported on FIAC meeting  
(3947) Viergutz reported at retreat on bus route changes  
(4115) Viergutz updated FPC on public reponse to bus route chgs  
(4131) Johnson reported on student study on inner-city stores  
(4207) Dixie reviewed status of school food service  
(4225) Costello reported on NHAC activities  
(4283) Petrey reported on school food service  
(4292) Johnson reported on student survey of inner-city stores  
(4298) Scott reported on UNO organization  
(4301) Johnson reported bus route changes proposed  
(4325) Dixie reported on Hands Across America Grant  
(4361) Blanton explained Mechanicsville Redevelopment Project  
(4378-4386) Blanton explained Mechanicsville Redevelopment  
(4456) Dixie reported on follow-up letter to school board

YEAR 6

(4654) Mary Nelle brought an article for FPC to read regarding the right to food  
(4670) Dixie reported on World Food Day Forum and copies of the questions asked  
(4747) Saadia reported on inner-city food store survey by NOAH  
(5414) Monty and Morin report on CAC grocery bus  
(5467) Dixie distributed article from CNI  
(5475) Dixie circulated copy of report by US House Select committee on Nutrition  
(5580) Ziegler updated FPC on County's efforts for a farmer's market. Needs a letter of support  
(5594) Saadia reported on grant to CAC to increase participation in WIC, school breakfast and summer feeding  
(5685) Discussion on Urbanstore proposal and Powell to keep FPC informed  
(5706) Dixie reported on a produce truck making rounds at Lonsdale community  
(5714) Wilson reviews a report by UT researchers on Downtown Knoxville retail market study  
(5734) Wilson reports Mechanicsville group is eligible for grant. There is interest in a grocery or small farmer's market

YEAR 5

YEAR 6

ADVISING

(3519) Moved and seconded to send letters to elected officials commenting on legislation about food and thank them for votes  
 (3597) Short moved and seconded motion to send letters to legislators  
 (3718) Dixie reported on awards activities of the committee (Short motioned and Henry accepted NHAC project)  
 (3950) Moved, seconded, and passed that FPC endorse food stores being considered when planning bus route changes by MPC transportation division  
 (4407) Traylor and Petrey reported they supported school breakfast and lunch and a full-time nutrition educator at a County School Board meeting  
 (4419) Traylor moved a letter be sent in support of full-time nutrition educator and seconded and passed  
 (4454) Letter written in support of full-time nutrition educator and increase in number of schools with School Breakfast  
 (4509) Motion made, seconded and passed FPC should prepare a paper for Downtown Task Force

(4638) Tom Short rev presentation of annual report to City Council  
 (5447) Proposal sent to DHUA wo work with people to bring a store to the inner-city  
 (5510) At County Commission meeting FPC rec. consideration be given of a food facility in Downtown Plan  
 (5528) Members were given draft letter of Knox County Solid Waste authority calling for recycling and cogeneration. FPC directed staff to send the letter  
 (5552) Wilson asked FPC members to review final revisions of Comprehensive Food Policy document and final changes approved  
 (5575) Wilson reports on FPC proposal to Dept. of Housing and Urban Affairs

PLANNING  
FPC AREA OF  
WORK  
EMPHASIS

(3583) McMillan moved and Short seconded approval of work plan for USA for Africa  
 (3873) Consensus that retreat should be scheduled  
 (3934) Retreat planned  
 (3974-4103) FPC discussed what their next activities should be  
 (4333) Wilson reviewed past three annual reports and FPC to think about format for 1986

(4744) Retreat date set to work on Comprehensive Food Policies  
 (5150) Dixie reviewed accomplishments of FPC over the last year and Council members suggested a 1988 work plan  
 (5158) Staff are to meet and consider suggestions for 1988 work plan and report back on suggestions for emphasis  
 (5319) FPC staff met to consider suggestions for 1988 focus. FPC accepted the recommendations of staff

YEAR 5

YEAR 6

<p><b>IDENTIFYING SOLUTIONS</b></p>	<p>(3800) Wilson raises question of a city composting system          (3869) Traylor suggests NHAC could assist with recs. For low-calorie food offerings at community leader meetings          (3903) Short recs. A recipe contest between restaurants to address overweight          (4026) Surplus food from restaurants could go to homeless and on-site feeding programs          (4077) Concern to have Emergency Shelters for complete homeless families with food.          (4390) Traylor spoke in favor of licensure for dietitians          (4548) Short recommends a semi-finalist for CCC awards</p>	<p>(4628-4636) Short recommends a caterer be involved in CCC project development and making food look good may be key in Feature Lighter Fare Project          (4740) Goal of FPC to get a retail food store for residents in Downtown Plan          (5589) FPC supports a farmer's market for Knox County</p>
<p><b>AWARENESS OF COUNCIL</b></p>	<p>(3730) Dixie reported on article written about FPC          (3750) Bing distributed copies of article that appeared in Am Comm Garden Assn Journal about Knoxville's FPC          (4543) Publicity for the Calories Conscious Consumer Project publicizes FPC</p>	<p>(4680) Media conference for CCC awards well attended          (5211) Award given at CCC media conference          (5234) NHAC participated in talk show on radio and TV          (5439) Article includes info on Knoxville FPC work          (5455) Dixie reported FPC to send reps. To Australia conference on healthy public policy          (5620) Dixie reported on meeting in Australia</p>
<p><b>INTERNAL PROCEDURES</b></p>	<p>(3482) Mayor appoints McMillan to serve second term. Sarah Scott new member for three year term          (3611) Dixie announced orientation time for new members          (3759) FPC discussed becoming county-wide          (3847) Staff was instructed to look for retreat place          (4199) Dixie reviewed the terms of members to be complete in July. Staff to make recommendations to Mayor on new members          (4336) Dixie reviews plans for IRS          (4341) Traylor moves and someone seconded that FPC seek legal support from city law director on IRS issue          (4422) Petrey reported letters were sent to elected officials on IRS issue</p>	<p>(5535) Members and staff received an updated listing of FPC members and staff          (5669) Dixie reported Mayor's office agreed to print annual report          (5713) Henry appoints Scott and McMillan to nominating committee          (5741) Dixie reports funds requested for FPC from CAC by City.</p>

YEAR 5

YEAR 6

**IDENTIFICATION OF PROBLEMS**

(3672) A number of Headstart children were not being brought to school because of the distance involved  
(3739) Inner-city food supply problem is worse than five years ago  
(3948) Question of accessibility of food stores by city buses  
(4031) Problem with transportation of food and dock construction  
(4055) Community gardens has lost of 2 sponsors and gardens without water  
(4365) Revitalized housing areas will need a food source  
(4495) FPC concerned food needs to be considered by Downtown Task

(4734) FPC members to meet with White Stores to see how they can stay open  
(5108) Ownership and control of wholesale and food processing is moving away from Knoxville  
(5111) Forest Ave. wholesale is obsolete, inaccessible buildings  
(5115) Small businesses are having hard time in redevelopment  
(5167) Large quantities of waste are generated within food chain

**REQUESTS FOR ADVICE**

(4175) Policymakers want people to bring issues to the Council but must be aware of the Council  
(4323) FPC had the opportunity to be an example to the rest of the county by addressing structural problems resulting in hunger  
(4504) Blasius states now is time for FPC to bring issues to the Downtown Task Force

(5308) Ft. Sanders wants to continue CCC awards  
(5590) Director of Development for Knox County rec. FPC support farmer's market

YEAR 7

YEAR 8

INFORMA  
L  
MONITOR  
ING

(5776) Wilson reports a on presentation to NOAH re Urbanstore  
 (5785) Wilson reports on Mechanicsville Redevelopment Project  
 (5821) Elizabeth reports on meeting with SICK about quality of food in inner-city stores  
 (5982) Dixie reports on CAC grant to develop a model inner-city grocery store  
 (6015) Dixie reports on meeting with Mr. Mayes from grocery store  
 (6036) Judy Wright from Wright grocery discusses with FPC concerns of inner-city grocery stores  
 (6172) Reports that FEMA allocated \$ to CAC to start voucher system for emergency food  
 (6236) Wilson reports on progress of work funded by the federal Comm Food and Nutr Program  
 (6427) Dr. Fox from UT discusses Knoxville's economy  
 (6442) Wilson reports he is conducting feasibility study of an Urbanstore  
 (6447) Petrey discusses recent CAC Nutrition Project's meeting with School Board  
 (6463) Scott reports on Senator Gore's Open meeting  
 (6485) Wilson reports on Comm Food and Nutr Program  
 (6568) Powell discusses widening of Western Ave.  
 (6577) Attaway discusses proposal to Dept of Comm and Econ Dev  
 (6590) Petrey reports every school in Knoxville will have School Breakfast next year  
 (6611) Powell reports Bradley's Market wants to renovate their store  
 (6689) Wilson reports on meetings with Mr. Mayes for improvements on his store

(6813) Powell relates working with Bats on emergency voucher demonstration project  
 (6837) Grady discusses the Senior Nutrition Program with FPC  
 (7032) Petrey announces school breakfast being served in 86 of 88 schools  
 (7129) Brokaw from Nutrition Services from Know County speaks with FPC about their programs  
 (7270) Wilson discusses Small Business Council and its relation to FPC  
 (7343) Henry reports meeting with News Sentinel, Mobile meals and FPC results in article being written  
 (7382) Henry reports on discussion with School Board  
 (7425) Petrey gives members copy of proposal for USA for Africa  
 (7438) Wilson reviews Food Facilities in Knoxville document with FPC  
 (7500) Traylor describes Food Labeling information sent to her from FDA  
 (7595-7765) WIC Director, Knox County School Food Service and HeadStart come to speak with FPC about their programs  
 (7805-7899) Short introduces McMillan and Hill to describe changes in the grocery store environment  
 (7947) Scott discusses visit to congregate meal site  
 (7972) Traylor discusses talk with Phil Clear from Knox County School Food Service  
 (8010) Petrey shares info on proposed cuts to child nutrition programs  
 (8026) Johnson provides update on revision of GDP  
 (8130) Petrey reports on a meeting with Traylor, Wilson and herself with Cate, Chairman of Downtown Organization about a downtown retail food store  
 (8195) Scott invites FPC to Health Forum sponsored by SICK  
 (8201) Wilson mentions working on City Facilities Study where food is available

YEAR 7

YEAR 8

INFORMA  
L  
MONITOR  
ING



(8205) Wilson mentions United Way needs survey, could ii include food perception needs  
(8220-8317) Giles of DHS describes day care guidelines to FPC  
(8327-8388) Members discuss their visits to school lunch sites  
(8390) Discussion on where it stands with nutrition educ position  
(8432) Petrey reports on traveling nutrition education show  
(8450) Update on GDP revisions by Johnson  
(8486) Bicentennial celebration - could food be included  
(8513) Johnson updates on GDP revisions  
(8535) CCC awards being evaluated  
(8577) Update on bicentennial celebration

YEAR 7

YEAR 8

ADVISING

(5817) Letter of support from FPC for recommercialization grant application moved, seconded and passed  
(6181) FPC rec CAC neighborhood centers be set up to issue FEMA vouchers  
(6220) FPC rec letter of support be sent to National Cancer Institute to encourage citizens to accept and consume nutritious food  
(6448) Scott spoke at Senator Gore's open meeting centering on concerns about cuts in food stamps. Spoke on behalf of FPC

(6819) FPC recs satellite market to Knox County Farmers market to help inner-city  
(7017) Annual reports to be mailed to community  
(7039) Traylor recs to school board to provide school breakfast in all schools  
(7286) Annual report presented to City Council and Mayor  
(7383) FPC member speaks at school board meeting to encourage not allowing school breakfast waivers  
(7500) Letter sent to FDA on food labeling from FPC  
(7972) Traylor talks with Phil Clear about nutrition educator in schools  
(8143) FPC working with Cate about grocery store downtown  
(8418) Letter written to be sent to Senators about proposed cuts to food programs sent

PLANNING  
FPC AREA OF  
WORK  
EMPHASIS

(6262) Wilson led group in discussing priorities for the FPC 1989 work plan

(7274) Retreat will be held  
(7489) Retreat set for Feb 13th

AWARENESS  
OF COUNCIL

(5839) Dixie gave presentation about FPC to Edmenton Canada  
(6137) WHO selected case study of FPC to be put into a book on local healthy public policy  
(6550) Article on Knoxville FPC

(6776) Article in JADA about FPC and CCC awards

YEAR 7

YEAR 8

INTERNAL  
PROCEDURE  
S

- (5754) Reappointment of Short and appointment of Rothchild to fill vacancy of Teague
- (5761) Short is Chair and Traylor Vice-Chair
- (5843) Henry recognized for year of service as Chair
- (5990) FPC brochure to be revised
- (6024) Brochure ready to be printed
- (6223) New brochures presented by Attaway
- (6536-6547) Powell, new, to work on a committee and Scott
- (6582) Petrey, Powell and Wilson work on guidelines for FPC committees
- (6629) Wilson reports on outline for 1989 Annual Retreat
- (6679) Staffney rec less summer FPC meetings
- (6700) McMillan and Traylor appointed to nominating comm

- (6716) Mayor reappoint Scott, new appoint. Bud Nelson, McMillan leaving as active member
- (6780) Traylor rec for Chair and Scott as Vice-Chair
- (7029) FPC to meet first Tuesday of each month
- (8531) Traylor makes available annual report mailing list to FPC members

YEAR 7

YEAR 8

IDENTIFICATION OF SOLUTIONS

- (5777) Urbanstroe proposal for 5 points redevelopment
- (5834) FPC to meet with manager of Mayes store to express its desire to work with an inner-city store
- (6123) Rothchild suggests article CCC awards in newspaper
- (6146) FPC encouraged CAC pursue funds for Emergency food
- (6270) Local federal and state feeding programs will be monitored for effective use
- (6303) Continue and expand public and voluntary programs
- (6348) Use advertising to improve public awareness good diets
- (6387) Encourage recycling
- (6397) Establish and maintain quality water standards
- ((6450) Petrey recs write to school board in support of school breakfast in every school and nutr educator position
- (6610) Petrey recs tour of food stores to gain 1<sup>st</sup> hand knowledg
- (6625) Bradley's Market may want look preservation loan fund

YEAR 9

YEAR 10

INFORMAL  
MONITORING

- (8764) Henry updates on bus route changes
- (8771) Petrey shares article on inner-city grocery stores
- (8810) Welch from K-Trans discusses bus route changes
- (8972) Petrey reports on food labeling from DHHS
- (9035) Johnson reports for Welch reports bus route changes to be finalized in November
- (9095) Haughton updates on food labeling
- (9112) Scott passes out article on unsanitary grocery stores
- (9134) Zeigler updates on Farmer's market
- (9215) Wilson reports on CDBG proposal
- (9278) Blanton reports on Fair Housing Conference
- (9282) Petrey reports on workshop on formulating feasible action to resolve nutrition-related problems in Knoxville
- (9289) Turner updates on CAC green thumb program
- (9295) Wilson discusses intern work on better understanding of inner-city grocery stores
- (9365-9468) Field inspectors for Env. Health Dept of Knox County inform FPC on regulation governing grocery stores
- (9472) Update on bicentennial committee
- (9478) Update on CDB grant by Wilson
- (9527-9598) Wood updates FPC on inner-city grocery stores
- (9600) Lambert of K-Trans updates FPC on bus route changes
- (9656) Update on bicentennial committee
- (9664-9720) Brokaw updates FPC on workshop held and results
- (9722) Petrey updates on school nutrition educator position
- (9787) Wilson updates on CDB grant
- (9805-9861) Walker of Emergency Food Helpers talks with FPC about their program
- (9864) Wilson updates on CBD grant
- (9906) Bus route changes update
- (9915) Bicentennial committee update

- (10067) Wood to gather info number of stores and restaurants
- (10079) Wilson updated members on CDB grant and inner-city food
- (10140) Turner states EFH is planning a breakfast with Sasser and walk
- (10223) Wilson reports Wood putting together list of major players in inner-city food
- (10238) Turner distributed flyers on Hunger Hike
- (10324) Petrey distributes article on food programs in Knox County Schools
- (10354) Greene from SHARE updates FPC on their program
- (10491) Turner reports on results of Hunger Hike
- (10622) Petrey provides FPC members with list of government officials
- (10682) Petrey discusses shopping carts at groceries
- (10748) Wilson reviews status of CDBG project
- (10971) Wilson updates FPC on workshop on inner-city food
- (11022) Briggs reports to FPC n EFH Hunger in Our Community
- (11033) Haughton shares Knox County has 80% schools participating in school breakfast
- (11045) Briggs updates FPC on Green Thumb and Community Garden Programs
- (11156) Petrey reports meeting to work on scheduling of buses for school breakfast
- (11164) F/U on results of inner-city workshop
- (11262) Blasius discusses Housing Trust Fund
- (11508) Briggs announced Petrey, Lovelace to meet with Mcook about school buses
- (11639) Study to be done on truck farming on urban development
- (11660) Petrey passes out invitations to Knox County Farmer's Market

YEAR 9

YEAR 10

ADVISING

(8755) Traylor met with Phil Clear to encourage nutrition educator position  
 (9063) At annual report presentation encourage nutrition educator position  
 (9502) Petrey met with Thomas, fiscal officer for Knox County Schools to discuss hiring nutrition educator  
 (9634) Letter of support received by K-Trans for bus route changes  
 (9886) Letter sent from FPC encouraging support of CBD grant

(10504) Letter in support of reducing childhood obesity and nutrition educator in school sent to Knox County Schools  
 (11006) Annual report presentation to City council and Mayor  
 (11152) Letter sent for support for nutrition educator and full funding

PLANNING AREA OF WORK EMPHASIS

(9183) Staff retreat scheduled  
 (9120) Suggested agenda items include Farmer's Market and SHARE  
 (9138) Staff retreat to be held  
 (9341-9352) Wilson made presentation about possible 1991 work activities

(10269) FPC retreat to be scheduled – Includes reviewing of comprehensive food policies  
 (10564) Retreat to include reaction to tour of inner-city, goals of inner-city workshop, and discussion on Food Policies from 1988. Also, get a better understanding of where FPC is going  
 (10658) Tour of inner-city  
 (10720) Retreat  
 (11079) FPC to meet again to review 1998 Food Policies  
 (11160) Next meeting to discuss recs of Food Policies adopted 1988  
 (11696) Meeting to discuss results of Food Access Workshop

AWARENESS OF COUNCIL

(8791) Info about FPC sent to City Limits Magazine in New York City and Cambridge Massachusetts  
 (8905) Australia, Food for the World and Sasser recognize Knoxville's FPC  
 (9310) Article by City Limits provided for members to read  
 (9322) Australia recognizes Knoxville FPC

(11635) Ken Dahlberg gets info on Knoxville's FPC

YEAR 9

YEAR 10

INTER  
NAL  
PROCE  
DURES

(8696) Haughton, Powell, Duncan new FPC members appointed by Mayor  
 (8705) Traylor, Staffney, and Henry were recognized for their service  
 (8717) Scott is Chair and Rothchild Vice-Chair  
 (8796) FPC orientation for new members  
 (8928) FPC orientation for new members  
 (8967) FPC orientation for new members  
 (9050) Discussion on how to present annual report  
 (9209) Brief discussion on Council attendance  
 (9492) Brochure revision  
 (9782) Brochure revision  
 (9940) Scott, Powell, and Rothchild are nominating comm  
 (9949) Haughton encourages participation in FPC

(9975) Kampas and Fitzgerald new members of FPC  
 (9989) Duncan Chair and Haughton Vice-Chair  
 (9998) Henry and McMillan were recognized for their service  
 (10063) Duncan distributes lists of new members  
 (10133) Reinstatement of FIAC  
 (10159) Revision of FPC brochure  
 (10161) Orientation for new members  
 (10182) Nelson retires from FPC  
 (10518) New brochures provided  
 (10520) Haughton suggests someone works with children on FPC  
 (10696) Petrey is leaving  
 (10910) Food and Nutr Audio-Visual Adv Comm established  
 (1151) Attaway recs. Someone from FPC be on K-Trans board  
 (11524) Mayor wants input on new FPC members  
 (11531) Scott and Haughton are nominating committee  
 (11536) Meeting attendance is low  
 (11591) Chair and Vice Chair same. Consider a Chair Elect  
 (11681) Briggs to serve as Food Policy Council Coordinator  
 (11694) Proposed committee on Food Access  
 (11704) Concern about FPC participation

REQUES  
TS FOR  
ADVISE

(9855) Walker from EFH encourages FPC involvement in World Food Day

(10150) EFH wants co-sponsorship from FPC for Hunger Free Knoxville  
 (11271) Housing Trust would like endorsement of FPC

RESUL  
T

(8868) Commitment that nutrition educator could begin in Sept 1991

(11037) 80% schools have school breakfast  
 (11082) Ready to fund nutrition educator position  
 (11618) After meeting with FPC reps. School board sets policy to not allow children to miss school breakfast

YEAR 9

YEAR 10

IDENTIFICATION OF PROBLEMS

- (8764) Henry asks how bus route changes will relate to food
- (8883) Teachers have a role in teaching lunch are they able to do this
- (8890) Mayes store reverted back to uncleanliness
- (9072) Access to quality food in the inner-city
- (9162) Two more stores in inner-city have closed
- (9222) Not focusing on whole inner-city need for food store but on individual communities
- (9406) Powell discusses possible child sickness due to bad water in snowcones
- (9465) Home-operated restaurants, caterers and delis operate without license
- (9507) Pressure from Alliance for Better Tomorrow to cut expenses to school
- (9772) Need to work with school fd personnel on nutr educ
- (9885) Need funding for FPC concerns

- (10025) Takes a lot of time to make video for bicentennial event
- (10092) Kampas notes loss of mom and pop stores
- (10094) Misuse of food stamps/abuse with food stamps
- (10108) Need for cold storage to improve access to customers to the food business
- (10132) Wholesalers need to meet demands of the public mad network needs to be strengthened
- (10581) FPC could have been more involved in developing policies for recyclable and biodegradable products, if FPC have been more attuned to their policies
- (10742) Tour led to understanding of difficulties faced bu food distribution systems
- (11040) Bus are not picking kids up in time to get school breakfast
- (11626) Bus route times are not flexible

IDENTIFICATION OF SOLUTIONS

- (8741) Child suggests a youth garden at one of KCDC gardens
- (8782) The Small Business Council could assist an inner-city store
- (8833) More advertising is needed about the grocery bus
- (8848) As shopping centers are built MPC should consider bus routes
- (9153) Haughton suggests developing a booklet on low-calorie foods to be available at various catered events throughout the year
- (9172) Wilson recs FPC amd Comm Design Ctr submit proposal for CDBG funds

- (10332) Petrey suggested FPC write letter to Knox County Schools to support efforts to reduce obesity and Haughton rec. add nutrition educator position
- (10382) Fitzgerald asks if restaurants can donate food to food bank
- (10874) Moved by Scott and seconded by Haughton that staff be authorized to prepare and submit an application for CDBG funds.

**PART 4**

**AN ANALYSIS OF THE IMPACTS OF A LOCAL FOOD SYSTEM  
POLICY IMPLEMENTED BY A FOOD POLICY COUNCIL:  
A SUMMATION**

## CHAPTER 1

### Summary of Parts 2-3

Research to date on policies has suggested that food system policy is a comprehensive way to approach issues of agriculture, food and nutrition (1-3). However, there are few food system policy models available to address these food system issues. One model with a comprehensive food system approach, however, has been in place since 1981 in Knoxville, Tennessee (4). In 1981 a government resolution was passed by the City Council signifying that food was a local government concern. Five goals for the City were developed to direct decision-making about food. These five goals provided a basis for a comprehensive food system policy (5). One of the goals was related to access to food. It focused on assurance that an adequate and nutritious food supply was available to all citizens in Knoxville.

To assist in implementing these goals, a food policy council was established that year with Council members, who were from diverse food-related leadership positions in the community, selected by the Mayor. The Knoxville Food Policy Council met on a monthly basis, starting in July 1982, with the purpose of monitoring the food system and offering recommendations to the Mayor, City Council, and community on what could be done to improve the food system taking into consideration the comprehensive food system goals. The Council continues in operation today.

Because the Food Policy Council has been functional since 1982, it offered a case-study to ask what impact a local food system policy had on access to food, a factor that influences hunger. More specifically, this research asked what impact it had on changing the trend of participation in food assistance programs, one of many

characteristics that influence access to food. The purpose of this study was to: 1) determine whether a local food system policy made an impact on access to food by changing the trend of participation in food assistance programs; and 2) describe the Council's processes and activities as a means to better understand how the Council operated and the results of any impact shown on access to food.

Two analyses were completed to complete these objectives. The first analysis incorporated a quantitative study technique to determine whether or not participation in food assistance programs was influenced by the local food system policy and to describe this impact. The technique that was used, control group time-series analysis, allowed for description of the trends of participation in these programs and determination of whether these trends changed after the initiation of the Food Policy Council (6). Changes in participation were analyzed for the 10 years prior to the initiation of the Food Policy Council (Time 1) and compared to the 10 years after its initiation (Time 2), specifically the years 1973 to 1992. The year 1983 was used as the intervention point to designate when the Council could have made an impact. Participation trends were analyzed and compared for Knoxville, with a food system policy, and Tennessee and the United States, jurisdictions without food system policies. Although 9 programs were identified for analysis, only 3 had adequate data for all three jurisdictions: the Food Stamp Program, the Summer Feeding Program for Children, and the Senior Nutrition congregate and home-delivered meals program. Absolute participation trends in the programs and participation rates were used as the quantitative measures. Trends were analyzed using simple linear regression. Simple linear regression determined whether the trend fit the description of a line or if it did not fit a line. If trends in Knox County changed from

linear to not able to be described as linear between Time 1 and Time 2, or not linear to linear, then the Council may have influenced changing the trend of participation.

However, if the observed trends were the same at the state or national level, then it could not be concluded that the food system policy had an effect.

The results of this study provided evidence that the food system policy did not have an impact on the rates of participation trends in the Food Stamp Program, Summer Feeding Program for Children, or the Senior Nutrition Program. However, when absolute participation was analyzed, there was evidence that the policy may have had limited impact. There was an increase in the trend of the number of meals served in the Senior Nutrition Program, an impact that could not be described on average daily attendance in the Summer Feeding Program for Children, and no impact on the Food Stamp Program.

It was hypothesized that perhaps the lack of changes seen in the Food Stamp Program could have been due to the type of program it was, how it was funded, and its eligibility guidelines. The Food Stamp Program was an entitlement program and, therefore, anyone who met the eligibility guidelines for the program was assured benefits. Participation could be influenced by changing funding and/or eligibility guidelines, and outreach. As a national program, any attempts to change funding or eligibility guidelines would have been determined at that level, with effects influencing all jurisdictions in a similar manner. Local efforts to enhance outreach and increase the social acceptability of the program could influence participation (7). Unfortunately, there were no data available to indicate whether or not the Food Policy Council tried to influence outreach.

The Senior Nutrition and Summer Feeding Programs were funded differently than the Food Stamp Program and may have had greater social acceptability. As discretionary funded programs, they each had maximum budget allocations that did not necessarily change with increased need. Any additional person who wanted to participate in either program would not have been able to participate once annual budget limits were attained. Local attempts to increase funding to these programs either at the local or state level through public or private funds could have allowed for greater participation and services. Increasing the percent of eligible persons served or changing program eligibility could have resulted in greater participation, also. However, local level efforts to increase participation without increased funding would not necessarily result in increases in participation or services.

To better understand these results and any effects of the food system policy seen in this quantitative analysis, a second analysis was completed to describe the activities and processes of the Knoxville Food Policy Council. The research design for this analysis incorporated a qualitative technique, or content analysis. Content analysis allowed an objective and quantitative description of the activities and processes of the Food Policy Council as recorded in monthly meeting minutes.

The content analysis revealed several themes regarding the activities and processes of the Council. These themes centered on 7 activities and 5 food system issues. The activities of the Food Policy Council included needs assessment, requesting advice, advising, creating awareness of itself, policy development, planning its work emphasis, and completing functions necessary to maintaining the structure of the Council. The 5 food system issues of concern to the Food Policy Council focused on access to food,

nutrition education, food quality, the economic vitality of the food system, and the environment. All of these issues related to the Council's 5 food system goals.

The content analysis showed that the food system policy, implemented by the Council, had the potential to increase access to food by influencing decisions. For example, according to the minutes, the Council was credited with increasing the number of local schools offering the National School Breakfast Program (8). The minutes also stated that the Council was responsible for influencing changes in the routing of City buses to accommodate the inclusion of more grocery stores on the routes (8). Additionally, food system policies developed by the Council were included in the City planning system (8) and offered a major long-term solution to access to food. The Council also advised the community about the Senior Nutrition Mobile Meals Program, and, according to the minutes, this resulted in a greater number of referrals to the program (8). Unfortunately, the availability of quantitative outcome measures of impact was limited. Therefore, no definitive conclusions about impact can be made, despite reports in the minutes of extensive efforts by Council members and of resulting impacts.

It was clear was that the Food Policy Council did not do any direct work with the Food Stamp Program at the local level. All attempts to change trends in this program occurred at the national level mainly by advocating that funding to this program be maintained or increased. No outreach efforts were identified in the minutes. In the Summer Feeding Program for Children the average daily attendance trend was unable to be described as linear in Time 2. Participation began to increase sharply in 1983 and continued until 1986; then it began to decrease sharply. This was almost the opposite of what was occurring at the state and national level. Perhaps a different discretionary

funded program was competing for this same pool of funding and allowed for this change in the otherwise increasing trend until 1986. What was clear is that the Food Policy Council did not do any direct work with the Summer Feeding Program for Children at the local or state levels. All recommendations were given at the national level. It appears that the Council did not make an impact on local participation in the Food Stamp program, but it was involved in efforts to influence access to food by increasing, for example, the number of local schools participating in the National School Breakfast Program.

The processes that allowed for potential impacts on access to food included predominantly needs assessment and advising. Needs assessment was defined as the process of gathering information about the food system, identifying problems, identifying solutions to the problems and tracking results. Once a consensus solution or recommendation was identified by the Council, it offered this recommendation to the appropriate decision-makers. And lastly, it followed the results of its recommendations by identifying if recommendations were accepted and by describing the outcomes of these recommendations.

The content analysis revealed, however, that a majority of the Food Policy Council's time was spent on the needs assessment process and, although advising was done, it took a substantial amount of time for impacts to be seen. For example, as reported in the minutes, it took 10 years to increase to 80% the number of schools offering school breakfast and 10 years to get a nutrition educator position funded for the school system (8). Some impacts were short-term, such as the reported increase in the number of referrals to the Mobile Meals program after the Food Policy Council advised

the community about the program through a newspaper article (8). As noted earlier, however, changes in programs reported in the minutes would need to be verified with program-specific participation data.

### **Considerations for Those Involved with Community Food Security**

These results provide some evidence that comprehensive food system policies implemented through Food Policy Councils can influence decision-making at the local level and, therefore, have the capacity to influence access to food. It is suggested that a local food system policy is a desirable and effective approach to community food security and prevention of household food insecurity and hunger. A local food system policy can provide the direction for decision-making that influences that community's food security. However, it is noted also that community food security incorporates other sectors of the community besides agriculture, food, and nutrition. It is proposed that the determinants of community food security are much larger than the immediate food system and that a model for community food security needs to be defined. A community food security model that identifies the determinants of insecurity can help local communities identify their targets for action and prevention.

A model is proposed of the factors that could influence a community's food insecurity in Figure 1. In no way is this a complete model of the factors that influence a community's food security. However, it offers a more systematic understanding of community food security. As identified in this figure and research, food system policies that promote the availability of and accessibility to federal food programs can impact access to food. Participation rates based on the number of eligible persons in these

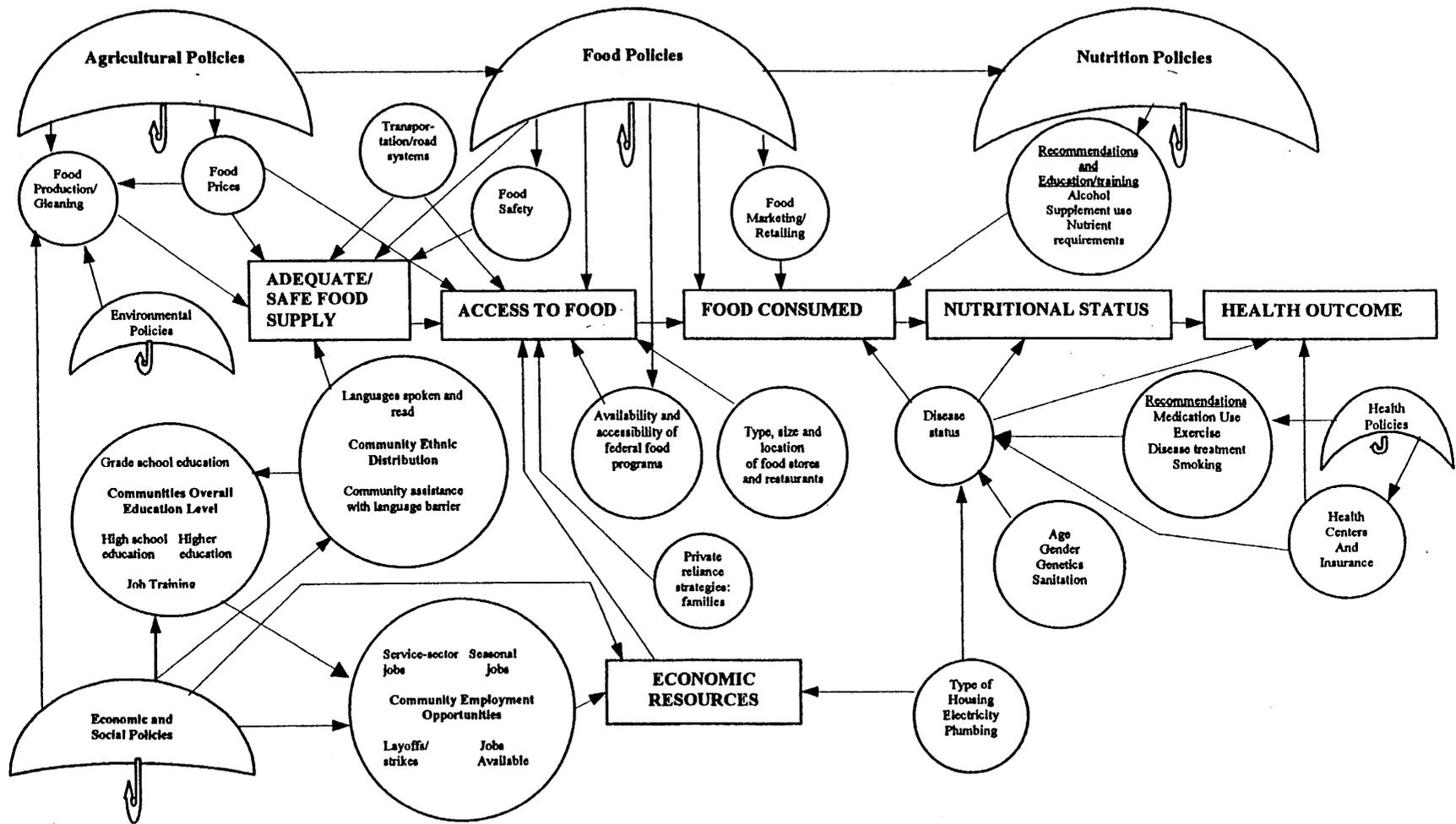


Figure 7. Proposed factors which could influence community food security.

programs are recommended as quantitative measures for evaluation of whether a community is assuring access to food. An adequate and safe food supply and economic resources also influence a community's access to food. Many sectors of the community, not only the agriculture, food and nutrition sectors, need to have adequate services and resources available and accessible for the community to be food secure. Federal food programs are only one of these resources.

Food policy councils and those interested in assuring community food security need to consider the best solutions or advice for improving the food system. When conducting community needs assessments, groups should consider factors outside the food system, such as economic and social programs and policies, health programs and policies, and environmental programs and policies. Nevertheless, those groups needing to evaluate how well their policies are directing decision-making and influencing community food security, could consider measuring food assistance participation trends as a starting point. Other quantitative measures also need to be developed and defined. Perhaps another quantitative measure may be related to the location of people and food stores. Tracking the number of food stores per census track or number of grocery stores per bus route and used by the community would be other measures. Although monitoring community food security is a complex and often daunting task, food policy councils offer a focused environment for this task.

In conclusion, based upon the available data from the quantitative analysis of this research, the local food system policy appeared to have limited impact on access to food, as measured by participation in three food assistance programs. Data from the qualitative analysis support the conclusions that the Knoxville Food Policy Council tried to influence

access to food and that Council members believed their efforts were having a selective impact. However, without a system in place to monitor impacts or outcomes, it is difficult in retrospect to determine what impact the Council actually had. Future work by this and other councils should include a system for monitoring and evaluating impact.

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## VITA

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