FINN, Matia, 1948-
THE POLITICS OF NUTRITION EDUCATION.
The Ohio State University, Ph.D., 1977
Education, health

University Microfilms International, Ann Arbor, Michigan 48106
THE POLITICS OF NUTRITION EDUCATION

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

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* * * * *

The Ohio State University

1977

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Dedicated to

Johnny, who cheerfully
surrendered so many
hours...
ACKNOWLEDGEMENTS

The completion of this manuscript marks the culmination of my graduate program and signals the beginning of a career and a realization of a goal. I take this opportunity for formal expression of thanks to all those who have taken part in forming and refining perceptions that are integral to my person and inherent in this study.

No one is more deserving of my love, respect and gratitude than my mother, Ima. Her joie de vivre and faith in her children's abilities have been a foundation on which growth was spurred. Her example of perseverance, dedication and honesty in life is, for me, a source of inspiration to strive yet one step further.

Dr. Victor (Vic) Rentel has been a friend, teacher and adviser dating back to my undergraduate program. For his academic and personal support through the years, I am grateful.

To the chairman of the doctoral committee, Dr. C. Ray Williams, I extend thanks for allowing me to depart from an ordinary course of study and to seek out and integrate knowledge and skills of various disciplines. Without his
respect for individual differences and his flexibility, my
graduate program would have been lacking and my ideals
inhibited.

To Dr. Luvern L. Cunningham I am grateful for giving
me so much of his time when there was often so little of it
to spare. I acknowledge Dr. Cunningham's important contribu-
tions to this study and am appreciative of his guidance,
encouragement and the professional manner he shared his
wisdom with me. Our association is indeed a privilege for
which I will always be thankful.

Dr. A. Harold Lubin so graciously agreed to work across
disciplines and to give me the benefit of his expertise and
knowledge in nutrition and research. I extend my thanks to
Dr. Lubin, not only for his share in my academic growth, but
also for his warm, supportive manner that has been es-
pecially important during the more frustrating phases of
data collection.

Dr. George G. Thompson has been an adviser and, more
importantly, a friend throughout my doctoral program. For
sharing with me his unique sense of perspective and for his
invaluable counsel and support, I am deeply indebted. I
will miss the opportunity to run up to his office for long
chats that have been so inspiring.
To Earladeen Badger and Joe McVicker Hunt, who have extended me their friendship and knowledge, I am very appreciative. Their ideals and the zest with which they transmit these to others have contributed to my thinking and helped shape the course of my graduate studies and career goals.

Ruth Jewett, who cheerfully consented to type the many rough drafts that preceded this manuscript deserves my special recognition and appreciation. To Evie Freeman, who listened patiently, Nancy Graham, Pat Schmitt, Charlotte Phillips, Liz Wilson and Jenny Yeagley for whose secretarial, moral and other support I am grateful—thanks!
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Studies in Policy Anatomy. Professor Luvern L. Cunningham

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CHAPTER ONE

INTRODUCTION

The purpose of this study is to develop a frame of reference in which the federal role in nutrition education may be understood and to describe and analyze the context within which federal nutrition education policies are made. The specific objectives are to:

1. Document the importance and relevance of nutrition and nutrition education to the education process.

2. Identify federal activities—legislation, policies, programs and hearings associated with these—relevant to nutrition education which were considered and/or acted upon between 1969-1977.

3. Explore and analyze the process of federal policy making in nutrition education.

4. Propose possible reasons for legislative action or inaction regarding a national nutrition education policy.

Importance of the Problem

This study is initiated in view of several recent developments. It is becoming apparent that the problems of
nutritional illiteracy and misinformation about food and the consequences of malnutrition pose grave social concerns and necessitate comprehensive nutrition education efforts (Stronk, 1976). Survey reports provide evidence that indicates that the diet of the average American has been gradually worsening for many years (Turner, 1970) and that snack foods and soft drinks of low nutritive value are fast becoming staples in the American diet (Henderson, 1971). Other studies further document the existence of malnutrition among segments of the American population (Owen, et al., 1969; Huenemann, 1968).

Since 1969 nutritionists have been advocating the enactment of a national nutrition education policy and have debated and speculated on the possible nature of such policy (Goldsmith, 1973) and its potential impact on the nation at large (Hegsted, 1974). Others have disseminated their conceptions of nutrition education and have urged legislators to adopt their advice (Mayer, 1972a). However, despite the debates, speculations and concrete recommendations that have proliferated over the years, there appears to be little, if any, federal effort in nutrition education (McGovern, 1977).

Scientific evidence does not support complacency about the American diet. The consequences of malnutrition are evident in such health conditions as heart diseases, hypertension and dental caries (Wier, 1971; Heinz, 1975). The life expectancy of the American male is decreasing (Turner,
1970) despite advanced medical knowledge. Malnutrition in pregnant women and infants is also taking its toll in terms of mental retardation and learning disabilities (Johnson, 1974) that may not become evident until later on in the lives of children.

Compounding the problems of nutritional illiteracy and declining eating habits is the lack of nutrition education in the nation's schools and universities (Heinz, 1972). While the need for educators to provide nutrition courses is determined, it is premature to expect the educational community to respond. Many educators are themselves unaware of the importance of nutrition education and of the relationship between nutrition and psychological development and learning. Furthermore, effective nutrition education extends beyond the dissemination of information. It requires the use of aesthetics and imagination, an understanding of cognitive bases of food choice, and an appreciation of factors underlying the motivation to change (Community Nutrition News, 1974). Effective nutrition education efforts further entail research and the training of teachers as well as the cooperative effort of nutritionists, educators and psychologists. In view of these facts it has been suggested that nutrition education reforms will not occur in absence of a national nutrition education policy (Goldsmith, 1973).

The federal government is further implicated in nutrition education efforts in view of the nature of the
recommendations that have been made over the years. It has been suggested that nutrition be taught daily (Bloom, 1973a), that nutrition courses be incorporated into the curricula of teacher training institutes (Ullrich & Briggs, 1973) and medical schools (Lippard, 1972) and that nutrition education be related to advertising (Choate, 1976) and food labeling (McEwen, 1973). Such endeavor potentially cuts across the educational, regulatory, industrial and agricultural sectors (Holden, 1974) and thus can only be legislated and enforced at the federal level. Furthermore, in that these sectors have been implicated they are in the position to manipulate congressional decisions in order to protect their interests.

Focusing on the making and execution of policies, Lasswell (1971) identifies a unique frame of reference for the study of policy and provides two models by which to analyze and arrive at an understanding of policy processes. Lasswell bases his concepts upon tested theories of policy development and human personality and motivation. He notes that policies are made within a social process context and involve decision phases that are clearly identifiable.

Lasswell's notion of the social process context wherein policies are made and implemented emphasises a flow of interaction among participants and between participants and the resource environment. This notion of interaction among and between participants leaves open to study the discovery of who initiates which act and how act completions of
participants are affected at each phase. Crucial to the understanding of the interaction prevalent in the social process context is the "maximization postulate" which holds that living forms are predisposed to complete acts in ways that are perceived to leave them better off than if they had completed them differently. Thus perceptions, be they valid or invalid, are at the core of and underly all decisions to act, how to act or not to act.

The social process model therefore exemplifies the basic notion that participants, seeking to maximize values (outcomes) utilize means (institution) that affect the environment:

Participants $\rightarrow$ seeking to maximize outcomes
utilize institutions $\rightarrow$ affecting environment.

Implied within this notion is an interactive process (as shown by arrows) and the fact that perceptions are inherent to participants and that these perceptions will in turn reflect the means by which participants choose to affect the environment in their quest for desired outcomes. A comprehensive social process model brings out the following factors:
Participants
Perspectives
Situations (zone of interaction)
Base values
Strategies
Outcomes
Effects

which are characteristic to the contextuality of policies.

Policies, then, are not made in the void. The policy process further entails a decision process which Lasswell (1971) structures by his use of a model that includes the following phases:

1. **Intelligence** which is defined as the gathering of relevant information and reflects the initiation of action.

2. **Promotion** which adds agitational intensity to the decision process and is reflected in the activities of interest groups who make specific demands with regard to the eventual outcome of the decision.

3. **Prescription** which entails legislation or the eventual outcome.

4. **Invocation** is similar to promotion but is on the opposing end of the prescription phase. It further elaborates and reaffirms interest in the policy outcome but forms the point of view of regulatory agencies and more in terms of the application of the outcome.
5. **Application** is the final characterization of concrete circumstances in terms of prescription.

6. **Termination** cancels prescription and deals with claims put forward by those who stand to suffer from the termination.

7. **Appraisal** characterizes the aggregate flow of decisions according to policy objectives and identifies those who are casually or formally responsible for success or failure.

This model exemplifies the perpetual nature of the decision process in the policy arena and provides a representation of a logical sequence of events. It is not to be implied, however, that such sequence is necessarily followed in its entirety, or in the same order.

Given (1) the importance of nutrition in terms of health and psychological development and the need for nutrition education and (2) the fact that a national nutrition education policy has not been forthcoming, the author will in this study explore the contextuality of nutrition education at the federal level and analyze the relevant data in view of the theoretical formulation developed by Lasswell (1971).

**Background**

The surge of interest in nutrition policies in general and nutrition education policies in particular is noted to
have begun in the 1960's as part of efforts to alleviate the consequences associated with poverty (Mayer, 1973). While the 1960's do indeed mark the initiation of current nutrition policy efforts, federal involvement in nutrition has been traced to 1917\(^1\) and recommendations made to the government with regard to nutrition education have been made during every decade since. These recommendations were made under different social climates and were instigated for different reasons. It is of interest to note, however, the recurrent theme through the decades for nutrition education for the general public, for children, for school personnel and for medical professionals [see (1) below].

More recent federal concern in nutrition centered around the alleviation of hunger noted to be prevalent among segments of the population in the United States. As nutritionists became more active in sharing their views with policy makers, it became apparent that the problems of nutrition in the United States are notably complex and extend beyond hunger and poverty. Thus in 1968, a Senate Select Committee on Nutrition and Human Needs was established in order to study the federal role in nutrition and to formulate relevant suggestions and legislation. Subsequently, a White

House Conference on Food, Nutrition and Health was convened in 1969 by Executive order wherein panels of experts explored implications of policies that affect food. In his statement of June 11, 1969, President Nixon clarified the purposes of the Conference:

In calling the White House Conference on Food, Nutrition, and Health, we are both reaffirming our commitment to a full and healthful diet for all Americans and exploring what we yet need to know and do to achieve that goal. For despite our achievements, much remains to be done. All of us have been shocked as we have become more aware that millions of Americans are malnourished because they are too poor to purchase enough of the right kinds of foods. We also know that many Americans who have enough money to afford a health diet do not have one. Many of our youngsters have erratic diets which may be deficient in certain nutrients. Many more of us do not eat wisely but too well.

The White House Conference on Food, Nutrition, and Health is intended to focus national attention and national resources on our country's remaining--and changing--nutrition problems. It will assemble the Nation's best minds and expertise, from our business, labor, and academic communities.

Four major areas of concern emerged at the conference, highlighting, in effect, the scope of the nutrition problems facing the United States in the 1970's. Recommendations were put forth relevant to the need for federal regulations and appropriations related to: (1) food assistance to the

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poor, (2) nutrition and health programs, (3) the regulation of food supply, and (4) nutrition education. In relevance to nutrition education, the need for a comprehensive nutrition education program "from kindergarten to medical school" was indicated.

In 1971, a follow-up White House Conference on Food, Nutrition and Health was held wherein it was ascertained that the problems associated with malnutrition in the United States of America remained acute despite food assistance to the poor. While the recommendations that evolved out of the 1971 conference were essentially the same as those noted above, nutrition education was emphasized; almost every panel indicated the need for nutrition education for all American people—specifically children, and recommended the implementation of nutrition courses in all levels of education.

In 1974, a National Nutrition Policy Study was held under the aegis of the Senate Select Committee on Nutrition and Human Needs. Two out of the five "goals of a National Nutrition Policy" were related to nutrition education. Recommendations were made that nutrition information be incorporated into all levels of formal education as part of

the basic curriculum requirement in all elementary schools and high schools, as part of the School Lunch Program, the training of teachers, physicians and other health professionals; that sound nutrition information for the general public be carried out through all components of the communications media, including Federal, State and Local departments of education, colleges and universities, community agencies, industry and the mass media.  

These recent recommendations for nutrition education were made to federal officials on the basis of studies evidencing the existence of malnutrition among the American poor (e.g., Pollack, 1969; Owen, et al., 1969, 1974; Huenemann, 1968) and observations of deteriorating food habits and lack of nutrition knowledge among all segments of the American population, regardless of income and educational levels (Henderson, 1972; Heinz, 1971; Lehmann, 1974). Further support for these recommendations was elicited from research attesting to the importance of nutrition in terms of health (Mayer, 1972b) and psychological development (Birch, 1972; Coursin, 1972). Despite the many years that have elapsed since the first White House Conference on Health, Food and Nutrition (1969) and the many

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recommendations that have been made there is still no na-
tional nutrition education policy nor any formal examination
of what occurred at the federal level since 1969.

Significance of this study

The development of a frame of reference and the pro-
vision of a contextual base from which to study the federal
role in nutrition education is significant and deemed pre-
requisite to any further recommendations and speculations
made in this regard. Findings from this study can illu-
minate events that inhibited related federal legislation,
an understanding of which may provide the impetus for a fur-
ther course of advocacy for nutrition education that will
yield positive results.

This study is further significant in that it will serve
to document the importance and relevance of nutrition and
nutrition education to the education process. Given the
vast amount of money spent each year on the education of
mentally retarded and learning-disabled children, the in-
volvement of educators in recognizing and advocating nutri-
tion education is of paramount importance. Of particular
significance is the involvement of individuals in early
childhood education. The assumption has been made that the
primary effects of cultural and other deprivation can be
compensated for by means of various remedial experiences
provided children during their pre-school years. The basic
errors inherent in such assumption have been pointed out over the years. Hunt (1975) for example, notes that pre­
school experiences provided were "too little, too late" and therefore ineffective. Vore (1971) on the other hand, points out that factors that limit the child's ability to profit from educational experiences extend beyond cultural deprivation and may be associated with nutrition.

While the importance of nutrition and nutrition education is emphasized, the significance of this study extends beyond these issues. In that this study incorporates a theoretical formulation for analysis purposes it provides a workable framework for similar inquiries and is further significant in the attempt made herein to integrate the social and biomedical disciplines with policy science.

**Definition of Terms**

**Nutrition Education** refers to the dissemination of information relevant to food, its components and its relation to physical and mental development.

**Nutrition Education Policy**, for the purpose of the study, refers to national (as opposed to state, local, or other) goals related to the dissemination of nutrition information. It is at times alluded to as part of four goals of a proposed National Nutrition Policy, and as part of food programs such as the school lunch and breakfast programs. However, it is distinct from these as it refers only to
the dissemination of information.

Malnutrition is a health condition in which an individual lacks one or more nutrients to the extent that specific symptoms or conditions appear. Anemia, goiter, rickets, vitamin deficiency etc. are some conditions associated with malnutrition. As used in this study, malnutrition also contributes to more subtle disorders such as behavioral and mental dysfunction that are not immediately noticeable as being related to nutrition.

Legislators for the purpose of this study are members of the United States Congress.

Policy is a representation of a goal which is a desired state of affairs.

Public Policy is defined as a guideline, a direction, aimed at achieving what is in the best public interests by the best means possible.

Organization of the Report

Introduction to the study and the rationale underlying its inception and significance are presented in this chapter. Chapter two will entail a description of the methodology inherent to the study and the procedures used to collect and analyze the data. In that this is an exploratory study, it is not based upon theoretical formulations that are usually made explicit in a chapter on the review of the related literature. For this reason such chapter is
excluded from this report. Chapter three presents findings relevant to objective number one and includes a review of the literature relevant to the importance of nutrition and the need for nutrition education. Chapter four is a presentation of the findings relevant to objective number two and presents federal activities in nutrition education. Chapter five includes an analysis and interpretation of findings and is relevant to objectives three and four. Chapter six presents the summary and conclusion.
CHAPTER TWO

METHODOLOGY

The purpose of this study is to develop a frame of reference in which the federal role in nutrition education may be understood, and to describe and analyze the context within which federal nutrition education policies are made.

Justification of Method

Given that the context in which and within which policies are made is one of interactions among personalities (Lasswell, 1971; Bailey, 1965, 1970), a description of the context within which federal nutrition education policies are made entails an examination of human behavior and the forces (e.g., perceptions, feelings, motives—external and internal) that move people to action or inaction. The purpose of this study further entails a contextual analysis. That is, the study of related behaviors within a particular context or set of events. Given the purpose, the author employed a qualitative method of study that directed itself into settings and individuals within those settings holistically. That is, the actors, as subjects of the study,
were not reduced to isolated variables, but rather were viewed and described as part of a whole (Bogan and Taylor, 1975). As an instrument of proof a qualitative method of study may be open to speculation and intuition on the part of the author. However, in mapping out the context within which decisions have been and are being made, the method has the advantage of keeping alive issues that might have otherwise been lost and of providing perspectives not easily attained through the use of more rigorous analytic tools (Bailey, 1965).

This study is exploratory in nature and entailed a political inquiry. Thus, relevant literature on politics and the political process in the United States guided the author's search for data as well as her understanding of events. Since in several instances throughout chapters four and five reference is made to such literature, it is imperative to note that the following references were used:


Procedures

In that this is an exploratory study, it is not based upon theoretical categories and theoretically prescribed relations between them. It seeks, rather, to address the question "what goes on in certain situations," the situation being defined as the context within which federal
nutrition education policies are made. The development of a contextual frame of reference was made in accord with the specified objectives of the study. The following pages provide an account of the specific procedures as related to each objective.

Objective Number One. To document the importance and relevance of nutrition and nutrition education to the education process.

This objective entailed a thorough examination of the literature and the reporting of studies that evidence (1) the need for nutrition education in terms of:

(a) The existence of malnutrition among the poor and

(b) the deterioration of eating habits, lack of nutrition knowledge and general confusion that exist in all segments of the population, and (2) the relationship between nutrition and psychological development and learning as well as between nutrition and health. Findings related to this objective are reported in Chapter three.

Objective Number Two. Identify federal activities—legislation, policies, program and hearings associated with these—relevant to nutrition education that have been considered and/or enacted between 1969-1977.

This objective alludes to the core of the study in that it entails a descriptive account of the context within which decisions have been or are being made. It provides an identification of the outcomes of such decisions as well
as an historical perspective on the role of the federal government in nutrition education.

Since, as it established earlier in the report, federal activities do not occur in a void but are, rather, products of interaction among participants, then inherent in this objective is not only the identification of activities, but also a description of the atmosphere that surrounds their initiation and progression and of the personalities involved in the decision process.

The specific questions addressed in this objective were:

1. What bills related to nutrition education have been introduced and/or enacted upon between 1969-1977?
   a. the nature of the bill
   b. sponsored by whom
   c. the eventual outcome

2. What policies/programs relevant to nutrition education have been initiated, considered or incorporated between 1969-1977?
   a. the nature of policy/program
   b. how initiated, or decided/undecided upon

3. What hearings have been held relevant to nutrition education between 1969-1977?
   a. how or why were hearings initiated
   b. the affiliation of witnesses offering testimony
   c. the nature of the testimony presented
d. recommendations made, and by whom

e. legislators present at the hearings

f. legislators' perspectives and perceptions as may be noted by their statements, comments, etc.

Objective Number Three. Explore and analyze the process of federal policy making in nutrition education.

Findings elicited in this study were analyzed by applying Lasswell's (1971) social and decision process models (see chapter one of this report). The choice of models to be used in the analysis was made after the data had been accumulated and according to the following directions specified by Lazarsfeld and Barton (1951) who note that:

1. A model should be articulate in that it proceeds from the general to the specific so that data may be studied either in detailed categories or in broad groupings.

2. The model should be adaptable to the structure of the situation, that is, it should contain the main elements and processes of the situation, and

3. It should be compatible with the author's frame of reference.

The analysis is presented in chapter five, section two.

Objective Number Four. Propose possible reasons for legislative action or inaction regarding a national nutrition education policy.
This objective entails the interpretation of findings and is presented in Chapter Five, section one. Such interpretation of events was made against the background of events that have occurred in the late 1960's in view of the noted relationships between the two sets of events. These relationships were made evident during the course of the interviews, however, given the nature and purpose of the study these were not presented as part of the findings in Chapter Four but are, rather, utilized interpretively in Chapter Five.

**Sources of data**

Data for objective one were collected by thorough review of the literature and were pertinent to scientific studies and replications of such studies.

For objective two (objectives three and four entail analysis and interpretation of data), two sources of data have been identified: (1) unstructured interviews and (2) unsolicited documents.

(1) **Unstructured interviews** were central to the methodology in that this is an exploratory study. Using guidelines prescribed by Richardson et al. (1965), interview procedures were adhered to throughout.

Given the controversial nature of some of the issues in nutrition education at the federal level, the interviews are not used as data sources as such, but rather,
in order to:

(a) gain a deeper understanding of events and inter-
relationship between events and

(b) ascertain the relevance of documents, as well as
the procedure for obtaining and understanding government
documents.

The identification of those to be interviewed was made
by an initial scan of the relevant literature. These ini-
tial interviews lead to another chain of enabling interviews
that included government officials and staff who have been
or are involved in nutrition education.

The nature of the interviews depended to a great extent
on the person being interviewed and the contribution he/she
was able or willing to make to the study. An interview may
have been so short as to yield a reference, or it may have
entailed a lengthy conversation that yielded valuable in-
formation to be used in the body of the data or in conjunc-
tion with the data.

Most of the interviews were held over the telephone due
to the fact that persons who needed to be interviewed were
scattered across the nation. However, several interviews
were held in person.

In some instances during early interviews the author
mentioned the actual title of the study. However, it ap-
peared that the title produced a defensive reaction es-
pecially when the interview was with government staff.
In order to avoid such reactions the author subsequently al­
luded to the study as one on nutrition education policies. 

There is a general feeling of impending controversy 
attached to nutrition education when discussed at the fed­
eral level. For this reason, and also in order to avoid 
superficial answers it was made clear to interviewees that 
the interview was of a casual nature, that it was not being 
taped and that they will not be quoted. 

Due to the nature of the interviews and the fact that 
these were used as enabling data, they are not reported in 
the presentation of the findings. However, the nature of 
the interviews and their content is made apparent through­
out chapters four and five. 

In those instances where people are quoted this is done 
with their consent or because the quotes were elicited from 
public documents. A copy of this report will be made avail­
able to government officials and others who participated as 
interviewees. 

(2) Unsolicited documents in this study were govern­
ment documents. These included: 

(a) The Congressional Record which provided verbatim 
accounts of hearings that have been held before Congress and 
the various Congressional Committees. 

(b) The Congressional Quarterly Almanac and the Digest 
of General Bills provided chronological accounts of events 
that have occurred in Congress in relation to specific bills
or hearings and a record of all bills that have been intro-
duced and public laws that have been enacted. These volumes
were used to trace the legislative history of each bill.
Documents relevant to (a) and (b) are available in the
Library of Congress Depository.

(c) Other government documents such as committee
prints and various agency reports are available upon request
and with the help of the Library of Congress Legislative Re-
search Service. These were used to compile specific nutri-
tion education activities/programs.
CHAPTER THREE

THE IMPORTANCE OF NUTRITION

This chapter presents findings relevant to objective number one and is devoted to the review of the literature relevant to two aspects:

(a) The need for nutrition education in terms of (1) the existence of malnutrition among the poor and (2) the deterioration of eating habits, lack of nutrition knowledge and general confusion that exist in all segments of the American population regardless of income.

(b) The importance of nutrition in terms of psychological development, learning and health.

Malnutrition: The Poor

The Ten-State Nutrition Survey, including New York City was conducted between 1968-1970 with attention being directed at the economically lower segments of the population. Findings, reported in 1972, indicate that:

1) A significant portion of the population surveyed was malnourished or at a risk for developing nutritional problems and
2) The types of malnutrition differed in prevalence and severity among the various segments of the population.

3) Many children and adolescents in all population subgroups were underweight and short in stature.

4) Obesity was prevalent especially among adult women.

5) High prevalence of low hemoglobin and hematocrit values was found in all segments of the population studied.

6) Poor dental health was encountered frequently.

7) Low serum albumin levels, suggesting marginal protein nutrition, were found among pregnant and lactating women.\(^5\)

Other studies provide further evidence to the existence of malnourishment among the poor and, more specifically, among infants, children and adolescents of low socioeconomic status. Jones and Schendel (1966), for example, uncovered extensive malnutrition in a group of infants from black, low income families in South Carolina. It was found that the body weight of 66% of the infants was below the 50th percentile on the Harvard Growth charts, 34% was below the 10th percentile, and 9% was below the 3rd percentile. 33% of

the subjects had serum asorbic acid concentration which is known to be associated with inadequate intake of vitamin C. Other studies conducted with infants reveal similar findings (McGarity et al., 1954; Mayer, 1965) that evidence the fact that malnutrition may be one of the underlying causes of infant mortality (Erhart et al., 1964; Hartman et al., 1965).

Birch (1972) observes that children coming from families in which the risks for malnutrition are high are unlikely to experience nutritional inadequacies only in early life. Such observation is supported by several studies. Owen and Kram (1969), studying the nutritional status of pre-school children in Mississippi, found that the poorer children were on the average smaller than the more affluent children and that their diets were significantly low in calories, vitamin C, calcium and riboflavin. Another study conducted in a clinic setting by Hutcheson (1968) provides evidence of high levels of anemia among poor white and black children in rural Tennessee. It is reported that the highest levels of anemia were found among infants one year of age and, of a group of 15,681 children up to age six, 20.9% had hematocrits of 31% indicating a marginal status. Low hemoglobin levels were also prevalent among children examined by Gutelius (1969) in a Washington, D.C. clinic. Gutelius reports that iron deficiency anemia, as determined by hemoglobin levels and corroborative red cell pathology
was found among 29.9% of a group of four hundred and sixty black pre-schoolers and 65% of a group of 12-17 months old infants. Moreover, Gutelius points out that the children studied were probably not representative of the highest risk population since the poorest and therefore most nutritionally vulnerable families do not attend well-baby clinics.

North (1967), studying Head-Start pre-school children, notes that 20%-40% of them exhibited high levels of anemia. Wingert (1968) also found high levels of anemia in a random sample of predominantly lower class children coming into the emergency room in a Los Angeles County Hospital.

In a survey of dietary and nutritional problems of crippled children in five rural counties in North Dakota, Bryan and Anderson (1965) found the diets of 73% of the one hundred and sixty-four subjects were less than adequate. The cause of the malnourishment was related to poor family diet in nine out of ten cases, and in one out of ten cases malnutrition was related to the physical handicap of the child.

Dibble et al. (1965) studied junior high school children in Onondaga County, New York. The subjects were drawn from broadly different economic groups: School 'M' was 94% black while schools 'L' and 'J' were predominantly white. The subjects also differed on the basis of fathers' occupation: "...of the 58% of the employed fathers in school 'M', 52%
were laborers, whereas only 10% from school 'L' and 38% from school 'J' were in that category." Comparing the subjects in terms of heights and weights as well as in terms of blood and urine sample analyses, the researchers found substantial differences among the subjects according to schools.

Hampton et al. (1967) and Huenemann et al. (1968) studied adolescents. They note that the subjects' intake of all nutrients decreased with socioeconomic status and that black boys and girls exhibited the worst dietary intake among other ethnic groups. Huenemann further notes that black students studied over a two year period exhibited irregular eating habits and appeared to be "fending for themselves."

Studies of dietary intake reveal similar associations between malnutrition and socioeconomic status. Meyers et al. (1968) studied the dietary habits of fourth, fifth and sixth graders about two-thirds of whom were black. Meals were ranked satisfactory or unsatisfactory. Four satisfactory ratings for a given meal over a four day period produced a "satisfactory" rating for the meal. 55% of the children failed to get such rating for breakfast, 60% did not receive satisfactory lunches and 42% had less than four satisfactory evening meals in four days. "Satisfactory" scores declined with age for all meals, and blacks generally had more unsatisfactory ratings than caucasians. Similar observations were made by Owen et al. (1974) in a study of
the nutritional status of pre-school children in the United States, 1968-1970. The authors note that among the socio-economically depressed the problem of malnutrition is related to lack of sufficient quantity of food (p. 642).

In view of the research attesting to the detrimental effects of malnutrition upon physical health and psychological development (see part two of this chapter), the nutritional status of segments of the American population reported in the above studies present acute concerns. Of particular concern is the reported prevalence of malnutrition among pregnant and lactating women, infants and pre-school children who are most vulnerable to the irreversible consequences of malnutrition (Birch, 1968, 1972; Kaplan, 1972). Also, the inadequate dietary intakes of adolescents pose grave threats, considering a recent trend among teen-age girls who, in increasing numbers, become pregnant and choose to keep their babies (Ellis, 1973). Not only do teenage girls have a need for adequate diets due to the physiological changes associated with adolescence (Fomon and Egan, 1973), their unborn children are likely to suffer physical and mental injuries associated with poor prenatal nutrition (MacMahon et al., 1961; Warkany, 1944; Widdowson, 1966; Smith, 1947). Thus it is noted that provisions must be made, and to some extent have been made (e.g., W.I.C. program, school breakfast and lunch programs, Food Stamps Program) to assure food availability to economically deprived
segments of the population.

Malnutrition is indeed associated with low income and must be alleviated through some income supplement provision. However, it must be appreciated that any such provision, even if it is directly related to food as is the case with the school breakfast and lunch program, will not necessarily wipe out the problems associated with malnutrition although it may combat hunger. Malnutrition is a condition which will persist despite adequate caloric intake as long as changes in food habits are not adhered to. Thus nutrition education, that is, informing children and adults of food components and their relation to physical and mental health, should be an integral part of any food programs if positive changes in dietary habits and nutrition status are to occur. Such contention is not necessarily agreed upon (e.g. Owen et al., 1974) debate the use of nutrition education to the poor, although they support nutrition education efforts directed at the entire population) but was the prevailing view in both the 1961 and 1971 White House Conferences on Food, Nutrition, and Health. Furthermore, several panels at the latter conference indicated the urgent need for nutrition education for all segments of

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Harper, A. E. "National Nutrition Policy." Presentation made at The Ohio State University College of Home Economics, Columbus, Ohio, April, 1977.
the population (Mayer, 1972a).

**Malnutrition: Other segments of the population**

Such recommendations were made on the basis of the fact that malnutrition and its associated consequences, although highlighted among the economically depressed segments of the population, are not limited to poverty and hunger. The fact is, people with adequate income and educational levels are considered at risk for malnutrition, obesity, and for what have been termed "nutritional diseases of abundance" such as heart disease which may be related to improper dietary habits and sedentary living conditions, (Mayer, 1973, 1972b). It is further noted that the nutritional problems of the general population stem not so much from lack of food as from "nutritional illiteracy" (Heinz, 1972) and rapidly deteriorating food habits of children and adolescents (Holden, 1974).

Since most nutritional surveys have been directed at the poor, statistical data relevant to the nutritional status of the general American population are not readily available. Of the studies that have been done, one related to pre-school children (Owen et al., 1974) did not reveal major nutritional problems among pre-school children of non-poor families although the authors do note the wide use of multi-vitamins and the prevalence of the conception that vitamins can replace foods. The first Health and Nutrition
Survey conducted on a "sample that is representative of the total U.S. population" in 1971-72 provides preliminary findings, published in 1974 noting that:

1) Iron was the nutrient most often found below standard in population groups for both whites and blacks in both income groups. Children 1-5 years of age had means 31-40% below standard; adolescents 12-17 years had means 23-33% below standard; females age 18-44 years had means 41-51% below standard.

2) All age groups for all race and income levels had calcium and vitamin A and C intakes that either approached or were above the standard except that black females 18-44 years of all income levels had inadequate intakes of calcium and white females of same age in the lower income group had low vitamin A intake.

Biochemical tests revealed that:

1) In all adult age groups, all race and income groups, more than 10% exhibited low hematocrit values.

2) The percentage of blacks with low hemoglobin values was more than 4 times that of whites in the 6-11 and 12-17 age groups for each income level.

3) Low serum albumin values were observed in the 1-5, 6-11 and 12-17 age groups and
4) Whites had a higher prevalence of low serum protein values for all age groups regardless of income level.  

A 1965 USDA study that compared the nutrient shortages in the diet of the U.S. population provides the following information:

Table 1

Families short of four or more nutrients, in relation to full NRC standards

<table>
<thead>
<tr>
<th>Family Income</th>
<th>% Deficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $3,000</td>
<td>21%</td>
</tr>
<tr>
<td>$3,000 to $4,999</td>
<td>15%</td>
</tr>
<tr>
<td>$5,000 to $6,999</td>
<td>16%</td>
</tr>
<tr>
<td>$7,000 to $9,999</td>
<td>12%</td>
</tr>
<tr>
<td>$10,000 plus</td>
<td>11%</td>
</tr>
</tbody>
</table>

Inferential data relevant to the nutritional status of Americans in general may be drawn from other sources. For example, the prevalence of obesity (Stunkard, 1976) arterosclerotic disease and hypertension (McGandy and Mayer, 1973) pose national health concerns and are related to poor dietary habits established in early childhood (Fromon and


8 USDA Booklet, ARS 62-17, 1968, Table 20.
Egan, 1973) and continuing throughout life. Wier (1971), for example, notes that diseases of the heart are the leading cause of death among American adults. Premature births (Thompson, 1959; Baumgartner, 1962) and perinatal mortality (Duncan et al., 1952) are also related to the mother's nutritional status during her lifetime and during pregnancy. The United States perinatal and infant mortality rates are relatively high reflecting nutritional problems among this population (Popkin, 1976).

Food consumption trends offer another source of relevant inferential data. Comparison of the 1955 and 1965 household consumption figures for foods used at home per household per week may be used to establish changes in food consumption. According to the USDA reports, changes that occurred during the 10 year period in question involve a decrease in the consumption of milk and fats, flour, cereal, eggs, potatoes, fresh fruit and vegetables and an increase in the consumption of bakery goods, commercially canned and frozen vegetables, fruitade, punch and, most noticeably, soft drinks (see chart below). Also inherent in these findings is the fact that fewer calories were consumed in 1965.

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It must be appreciated, however, that perinatal and infant mortality is twice as high among the poor and thus reflect more than just nutritional factors.
In view of such fact, the negative trends in present food consumption gain in significance.

Table 2—Comparison of 1955 and 1965 Household Consumption Survey Figures for Food Used at Home. (Per Household per Week)*

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Quantity (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1955</td>
</tr>
<tr>
<td>Milk</td>
<td>31.86</td>
</tr>
<tr>
<td>Fats, oils</td>
<td>2.97</td>
</tr>
<tr>
<td>Flour, cereal</td>
<td>5.87</td>
</tr>
<tr>
<td>Bakery products</td>
<td>6.70</td>
</tr>
<tr>
<td>Meat</td>
<td>10.10</td>
</tr>
<tr>
<td>Poultry, fish</td>
<td>3.68</td>
</tr>
<tr>
<td>Eggs</td>
<td>2.81</td>
</tr>
<tr>
<td>Sugar, sweets</td>
<td>4.15</td>
</tr>
<tr>
<td>Potatoes, sweet potatoes</td>
<td>6.23</td>
</tr>
<tr>
<td>Fresh vegetables</td>
<td>8.86</td>
</tr>
<tr>
<td>Fresh fruit</td>
<td>9.52</td>
</tr>
<tr>
<td>Commercially canned</td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td>2.58</td>
</tr>
<tr>
<td>Fruits</td>
<td>1.51</td>
</tr>
<tr>
<td>Commercially frozen</td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td>.46</td>
</tr>
<tr>
<td>Fruits</td>
<td>.10</td>
</tr>
</tbody>
</table>
Table 2 (continued)  

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Quantity (pounds)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1955</td>
<td>1965</td>
</tr>
<tr>
<td>Dried vegetables and fruits</td>
<td>.61</td>
<td>.47</td>
</tr>
<tr>
<td>Beverages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coffee</td>
<td>.80</td>
<td>.74</td>
</tr>
<tr>
<td>Soft drinks</td>
<td>2.89</td>
<td>5.09</td>
</tr>
<tr>
<td>Fruitade, punch, nectar</td>
<td>.12</td>
<td>1.02</td>
</tr>
<tr>
<td>Soup and other mixtures</td>
<td>1.53</td>
<td>1.95</td>
</tr>
<tr>
<td>Peanut butter</td>
<td>.19</td>
<td>.30</td>
</tr>
</tbody>
</table>

*USDA, ARS, Report No. 1, 1968 (ARS-34)*

In information compiled for the Senate Committee on Nutrition and Human Needs, it was made evident that Americans today eat "fewer fresh vegetables, dried legumes, fruit, whole grains, and cereal. They eat more protein, sugar (125 lb per person per year) and salt (10 times the amount the body requires daily). Over 50% of the total intake is in the form of processed foods, with manufacturers adding one billion pounds of additives to the food each year. Per capita consumption of meat totals about 543 pounds. What all this amounts to is a diet high in meat,

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fat, refined sugar, additives and calories."

Henderson (1971) notes the spiraling consumption of snack foods that are of low nutritive value. He estimates that in some instances snack foods comprise 30% of the caloric intake, are eaten instead of some main meals, and threaten the nutritional status of the individual user. He concludes by observing that America's nutrition problems stem not only from the inability to pay for food, but also from the inability to choose appropriate foods. Choate (1976) and Engle (1977) also note the increasing consumption of snack foods and sugar-coated cereals especially by young children. Others (Mayer, 1973; Holden, 1974) point to the fact that "fun foods" of low nutritive values and soft drinks are fast becoming staples in the American diet.

Another factor associated with current food patterns is the trend to eat away from home. Gordon (1973) elaborates, noting the increasing trend toward the consumption of "fast foods" away from home and the increasing percentage of prepared meals being eaten at home. Sherk (1971) points to a decrease in food retail stores from 401,000 in 1950 to 210,000 in 1970 - a decrease of 48% in 20 years - partially evidencing the fact that less food is prepared at home. He further notes that 30% of the food dollar is spent outside the home and that the percentage is expected to grow to 50% by 1985.
"Eating out" does not necessarily pose nutritional threats (Henderson, 1971). However, as Gordon (1973) indicates, the trend is toward eating "fast foods" which lack certain nutrients. Sherk, who is the director of Corporate Research for the Pillsbury Company, further notes in an article in a trade journal that rising labor costs and lack of trained food-service personnel result in greater and greater use of convenience foods such as frozen entrees, prewrapped sandwiches, ready to bake cookies and cakes as well as countless "engineered foods" that also find their way to the school cafeteria and hospital room via the food-service industry. In noting "trends" that affect the industry, Sherk identifies rising educational and income levels, travel, urbanization, leisure activities, increasing numbers of working housewives, disappearance of the family meal and the disappearance of the 3 meals per day routine as factors contributing to the success of the food-service industry. His words hint of warning as he notes the increase in nutritional awareness among some Americans and "a bill in Congress (HB 5291) for more funding for nutrition education" both of which, he contends, are likely to affect the food industry as a whole.

Factors contributing to changes in food habits are subject to wide debate. Representatives of the food industry, as may be exemplified in the above paragraph, note that food companies are affected by public demand for "engineered,"
highly processed and convenience foods. Mayer (1972a) contends that the industry, faced with a decrease in food sales, creates such demand by flooding the market with new foods of questionable nutritional value but of much sale appeal in the form of innovative packaging. Choate (1974, 1976) points to aggressive advertising practices of the food companies and to the fact that most of what they advertise are snack foods and sugar-coated cereals. Furthermore, Choate and others (Ullrich and Briggs, 1973; Goldsmith, 1973; Robertson et al., 1974; Sharaga, 1974) claim that the advertisements aimed at children often include erroneous claims of the high nutritive value of the product and serve to create deleterious eating habits among young children whose diets deteriorate to even lower levels with age.

For the purposes of the present study it is not necessary to explore such issues in greater length. Suffice it to be appreciated that the American population, as a whole, suffers from changes in food consumption that signal threats to the optimal development of children in particular. This should not be interpreted to mean that most Americans are nutritionally unconcerned. On the contrary, reports linking diet to various preventable diseases and cures have proliferated in recent years to the extent that the level of nutritional awareness among some people has increased substantially (Henderson, 1971). However, so have unscientific books and journal articles giving erroneous nutritional
advice (Holden, 1974). Advocates of anything from "dandelion coffee, unpasteurized milk, organic gardening and vitamin supplements, to Zen Macrobiotic diet" are persuading people to adopt foolish, costly and often fatal eating habits (Deutch, 1976). Compounding the problems of food faddism are the facts that (1) low nutritive foods are advertised as "fortified," "completely nutritious" or as related to energy and power (Ludington, 1973; McEwen, 1973), (2) most foods currently sold are highly processed, or engineered in nature (i.e. "new foods") that do not lend themselves to nutritional analysis by the average consumer, and (3) there is an apparent lack of relevant nutrition education programs (Goldsmith, 1973).

**Nutrition and Development**

The role of nutrition in the physical growth of the human organism has been noted for some time (Rueda Williamson et al., 1962) and its relation to infection and disease has been made increasingly evident (Passmore et al., 1963). Recent and accumulating studies further reveal the possible relationship between nutrition and other realms of human development. It is becoming apparent that an adequate diet is

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12 This section will be devoted to the relationship between nutrition and psychological development, learning and health. In order to maintain the relevance of this study to educators, more attention will be devoted to psychological correlates of nutrition.
not only essential for the maintenance of physical integrity, it is also fundamental for the development and actualization of psychological potentialities (Raman, 1974). Furthermore, evidence is accumulating that indicates that malnutrition may be the most detrimental of all environmental factors inhibiting optimal intellectual growth and behavioral development and that the earlier in life malnutrition occurs, the more likely its effects will be irreversible.

The significance of such findings to educators cannot be overlooked. The assertion is often made in educational and psychological settings that the child ought to be considered and treated "as a whole" (e.g. Goodland, 1966; Good et al., 1975). However, most educators have traditionally neglected to take into account the fact that the child is a biologic organism who interacts with the social, cultural and other experiential circumstances that present themselves. Physiological, social, behavioral and intellectual development occur in concert and are interdependent. Thus any injury to one facet of human growth will indeed affect all other facets and inhibit the course of development. It has been pointed out that particular patterns of child care (Maccoby et al., 1958; Kriger, 1973), cultural atmosphere (Cole et al., 1971), styles of play (Arnaud, 1974) and cognition (Kagan and Sigel, 1963; Bruner, 1966), particular value systems (Baratz and Baratz, 1970), linguistic styles and experiences (Cazden, 1972; Labov, 1970) and deficient
educational settings (Hunt, 1961) and instructional modes (Bloom, 1973b; Stallings, 1976; Gage, 1969) are factors that contribute toward lowered intellectual achievement and poor academic performance in some children. While such situational and experiential variables of psychological development are important, they gain in significance when considered in relation to biochemical evidence suggesting the crucial role of nutrition in hindering or facilitating the processes underlying human development.

Nutrition and Psychological Development: Highlights of the Research

According to Birch (1972), studies exploring malnutrition and facets of psychological development in the human organism generally fall under one of five of the following models:

a) Comparative studies of well and poorly grown children in populations at risk for nutritional injury in infancy.

b) Retrospective follow-up studies of antecedent nutritional experiences of well-functioning and poorly-functioning children in such populations

c) Intervention studies in which children at risk were selectively supplemented or unsupplemented during infancy, and a comparative evaluation made of functioning in both groups
d) Follow-up studies of clinical cases hospitalized for severe malnutrition in early childhood, and
e) Intergenerational studies relating to the degrees to which conditions for risk of malnutrition in the present generation of children derived from the nutritional history of their mothers.

Such variety of models associated with the study of malnutrition and psychological development provide for a well-founded data base from which to draw evidence. These studies are further supported by animal studies that are direct comparative follow-up investigations of nutritional injury in early life, and others that reflect the cumulative effects of malnutrition through exposing successive generations of animals to nutritional injury. These studies, although not entirely conclusive, serve to provide inferential data that have been useful in determining the effects of malnutrition upon human development.

Cravioto and DeLicardie (1966) and Birch (1970) review studies exploring the relationship between malnutrition and psychological development and the child's ability to learn. They note that the most complete study evidencing such relationship was one they conducted in a rural Guatemalan village where a "significant prevalence level of both acute malnutrition and prolonged subnutrition" affected children during their infancy and pre-school years. When the children reached school-age, the investigators identified them
as better grown or as having the highest antecedent nutritional risk on the basis of height. That is, children who were malnourished in the early years were considered to be those children who were shorter than average, and children who were taller than average were considered to have bypassed nutritional injury during their early years. In order to control for the possibility that height differences reflected genetic differences in stature rather than differences in antecedent nutritional status, the children's height was correlated with that of their parents, resulting in "extremely low and insignificant" correlation. Another ethnic group living nearby in an adequately nutritional setting was compared identically, revealing a significant correlation between height of children and their parents. It was thus established that short stature in the particular children indicated antecedent nutritional stress.

On the basis of such reasoning, two groups of six to eleven year old children were selected from the village population of children encompassing the tallest and shortest quartiles of height distribution at each age level for the total population of children age six to eleven years. The groups were compared by means of evaluating intersensory integrative competence using a method developed by Birch and Lefford in 1963 (see Birch, 1964) in which children judged whether geometric forms presented in different sensory modalities are the same or different. Competence in making
such judgement follows a clearly defined developmental course in normal children.

At all ages, taller children exhibited higher levels of neurointegrative competence than did shorter children. Overall, the shorter group lagged two years behind their taller age mates in information processing skills across sensory systems. While it could be argued that the shorter children exhibited maturational lags stemming from deficient living conditions rather than antecedent malnutrition, the authors note that no differences in neurointegrative competence were found among the shorter and taller children in the village not exposed to malnutrition. Furthermore, subsequent studies controlling for socioeconomic and other variables failed to erase the differences in neurointegrative competence found among the shorter and taller children of the village wherein endemic malnutrition was prevalent.

Replication of the study conducted by Cravioto and DeLicadie (1968) in Mexico and Champakan, et al. (1968) in India provides similar findings. Cravioto, Espinoza and Birch (1967) also examine an aspect of neurointegrative competence—auditory visual integration—in school-age children in Mexico, again noting differences in auditory-visual integration to be related to stature. Furthermore, their finding also include a positive correlation between poor academic performance and poor auditory-visual integration thus demonstrating the association between such competence and
the ability to acquire primary reading skills (Kahn and Birch, 1968).\textsuperscript{13}

Liang Pek Hien et al. (1967), studied children age five to twelve from lower socioeconomic groups in Indonesia. In prior nutritional surveys in the area, forty-six of the children were classified as malnourished. All children were tested on the WISC and Goodenaugh tests with scores showing differences favoring the better-nourished children. Moreover, the data indicate that those children classified as malnourished were appreciably shorter in stature, thus providing support to the design of studies reported above.

Mockenberg (1968) examined fourteen infants with severe marasmus, a condition of malnutrition, diagnosed during the ages of one to five months. The infants were hospitalized, treated and discharged and later observed during out-patient visits. When the infants were discharged and for several years later, the mothers were given twenty litres of free milk each month for each pre-school child in their families. Three and six years later, the children appeared clinically normal. However, head circumference and intelligence quotient were significantly lower than those of control children, most of them falling in the EMR category of 50-75 I.Q.\textsuperscript{13}

\textsuperscript{13}In these studies, antecedent malnutrition is inferred from differences in height rather than observations of dietary intake. The validity of such inferences has been established by numerous studies conducted by Greulich (1958), Boyd-Orr (1936), Mitchell (1962, 1964) and others.
Language retardation was most evident. Such results lead Mockenberg to conclude that the consequences of malnutrition occurring in the first few months of life are permanent, at least up to the sixth year of life, despite subsequent nutritional rehabilitation. Cravioto and Robels (1965) also indicate there exists a strong association between age of onset of malnutrition and the persistence of its residual effects upon mental performance. Their data suggest that the earlier after conception the nutritional injury is experienced, the more severe and irreversible its effects will be.

Another study (Chase and Martin, 1970) of twenty Colorado children hospitalized for malnutrition before the age of one year supports this view. These children had a mean developmental quotient on the Yale Revised Developmental Examination which was seventeen points lower than that achieved by a matched control group of children who had not suffered from malnutrition. Studies by Pollitt and Granoff (1967) and Botha-Antoun et al. (1968) elicited similar results.

Several follow-up evaluations of children who as infants suffered a nutritional illness such as marasmus (a disorder produced by an insufficient intake of proteins and calories) or Kwashiorkor (a syndrome produced by an inadequate intake of protein accompanied by a relatively adequate caloric intake), provide further support to the evidence
already cited. Waterlow, Cravioto, and Stephens (1960) report that children who suffered from such illnesses exhibited delays in language acquisition. Cabak and Najdanvic (1965) compared levels of I.Q. of children hospitalized for malnutrition at less than twelve months of age with those of healthy children of the same social stratum. They note reduced I.Q. levels in the group previously hospitalized.

Champakan, et al., (1968) studied variables in a group of nineteen Indian children hospitalized and treated for Kwashiorkor between eighteen and thirty-six months of age. When compared with a well-matched control group, these children were noted to have significantly depressed I.Q. scores.

Birch et al. (1971) compared children previously malnourished in infancy with their siblings as well as with other children of similar background. Intelligence scores of thirty-seven previously malnourished school-age children were compared with those of their siblings who did not experience severe malnutrition and who were within three years of age of the hospitalized group. Full scale WISC IQ of the hospitalized group was thirteen points lower than that of sibling controls. Verbal and performance differences were of similar magnitude and in the same direction. All differences were significant at less than 0.01 percent level of confidence. Such findings support the evidence cited above and further remove the possibility that differences are due
to factors other than antecedent nutritional injury.

Hertzig, et al. (1971) compared seventy-four Jamaican boys who had been hospitalized for malnutrition during infancy with their brothers nearest in age and with their classmates whose birthdate was closest to their own. All children were between six to eleven years of age at follow-up. On examination, neurologic status, intersensory competence, intellectual level, language and perceptual motor abilities were evaluated. It was noted that intellectual level was considerably lower in the hospitalized group than in either sibling or classmate groups. The order of competence placed the classmates at the highest intellectual level and the siblings at an intermediate intellectual level. Such findings suggest that the presence of a child hospitalized for severe malnutrition identifies a family in which all children are at a high level of risk for undernutrition on a chronic basis, with the hospitalized child experiencing an episode of nutritional illness as well. Thus such sibling-control studies do not, in fact, compare malnourished with well-nourished children, but rather offer findings that help determine whether siblings who differ in their degree of exposure to malnutrition also differ in intellectual outcome. The studies therefore tend to support the view that graded degrees of malnutrition result in graded levels of intellectual development.
The relationship between the age of onset of malnutrition and the degree of damage nutritional injury is likely to have may be explained in terms of brain development. Winick and Rasso (1969) analyzed the brains of fetuses obtained through abortion and of infants who died accidentally and from severe malnutrition. Their data indicate that in humans, the number of brain cells increases rapidly in cellular fashion until birth and then more slowly until six months of age. Between six months of age and adolescence there is an increase in weight only, with the brain reaching 75% of its ultimate size during the first two years of life. The brain of infants who died of malnutrition during the first year of life contained fewer brain cells than normal. In some cases the deficit was found to be up to 60% of the expected number.

Verification for the above results may be noted in several other autopsy studies. Brown (1966) conducted an autopsy on organ weight in 1,094 Ugandan children who died while suffering various degrees of malnutrition and notes the low brain weight of the malnourished children. Naeye, Diener and Dellinger (1969) studied an urban American sample of 252 babies either still-born or dead within forty-eight hours after birth. Autopsy results showed that those from poor families were 15% smaller than those from non-poor environments, with the brain weighing significantly less in infants from poor families. Parekh, et al. (1970) found
a 28%-36% weight deficit in the autopsied brain of 357 malnourished Indian children. It was noted that the greater the nutritional deficiency, the greater was the weight deficit especially if the malnutrition occurred within the last three months of gestation and the first three months after birth.

Animal studies in support of the above findings may be noted. In a series of studies, Widdowson (1966), Dobbing (1964) and Davidson and Dobbing (1966) note that both severe and modest degrees of nutritional deprivation experienced by an animal during the time when its nervous system is developing most rapidly results in reduced brain size and in deficient myelination. They further demonstrate that these deficits are not made up later in life even when the animal is subsequently nutritionally rehabilitated. As with the human studies, the animal studies cited above indicate that the effects of malnutrition vary in accordance with the time in the organism's life at which it is experienced. Since the critical developmental period in terms of brain growth occurs at different points in the life course of species, it is to be noted that nutritional deprivation that are experienced during the same chronological age of the organism will have differential effects upon the particular animal in question. For the purposes of this review, suffice it to be understood that the critical developmental period for the human organism extends from conception to the first two
years of life and that the brain is most vulnerable to nutritional injury during the last month of intrauterine life (Winick, 1968).

Although the relationship between the number of brain cells and subsequent mental function is not yet established, such data provide evidence attesting to the possible consequences of malnutrition suffered during gestation and shortly after birth. Also, while general reduction in brain weight is noted to be associated with malnutrition, it is not known what part of the brain is most traumatized (Kaplan, 1972). In addition to brain growth, the mind consists of other mechanisms that facilitate its activity and function. These include molecular bases of intelligence, learning, memory, and behavior. This study does not necessitate a full discussion of the development, integration and maturation of such enzymic and metabolic systems. However, it should be recognized that these are fundamental to capability and performance (Himwich, 1970) and are dependent on nutrition for their very existence, maintenance, and activity. It is evident, then, that abnormalities in nutritional intakes of sufficient degree and deviation may produce deleterious effects depending on the time during which nutritional injury occurs (Coursin, 1972).

The above studies are indicative of the fact that malnutrition affects intellectual development. Cravioto, DeLicardie and Birch (1966) point out that at least three
possibilities must be considered in effort to determine a causal linkage. The simplest hypothesis would be that malnutrition directly affects the intellect by damaging the central nervous system. However, malnutrition may also contribute to intellectual incompetence by causing the child to lose learning time necessary for intellectual development. Malnutrition is often accompanied by listlessness and reduced responsiveness even after recovery, thus hindering the infant from sufficient interaction with the environment without which optimal psychological development cannot occur (Hunt, 1961, 1975). Stone (1975) also notes that the malnourished infant exhibits diminished responsiveness to the environment and that his value as a stimulus to the mother is thus reduced, which in turn serves to reduce her responsiveness to him with the result that there occurs an interaction breakdown between the mother-infant pair involving social and emotional disorders in the infant that further contribute to intellectual deficiencies. Moreover, exposure to malnutrition at a particular age may interfere with development at critical points in the child's growth course and so provide either abnormalities in the sequential emergence of competence or a redirection of developmental cause in undesired directions.

Learning, defined more broadly in terms of intellectual development, is by no means simply a cumulative process. A considerable body of knowledge exists that indicates that
interference with the course of learning process at specific times results in disturbances in function that are both profound, long term and often irreversible (Hunt, 1961; Bloom, 1964). What appear to be important is not the length of time the organism is deprived of opportunities for learning, but the specific stage of development at which a given set of experiences are missed (Piaget, 1953; Hunt, 1975). Of most significance is the ability to interact with the social and physical environment during the first two years of life if optimal social and intellectual competence is to be realized (White, 1971, 1975). In light of such knowledge, the direct or indirect consequences of malnutrition may be noted as detrimental to psychological development.

Studies related to malnutrition during pregnancy and the intergenerational effects of malnutrition may be noted as these provide explanation as to some of the ways malnutrition is detrimental and point to the severity of problems associated with malnutrition and its consequences. Touverud, et al. (1950) review a large number of studies in which vitamin and mineral intakes of pregnant women were controlled. The overall results were that the control of vitamins and minerals led to a significant decrease of stillbirth and prenatal mortality rates. McCance, et al. (1938) compared pregnant wives of unemployed British miners to pregnant wives of professionals. They note that the intake of vitamins and minerals was related to the economic income
and social class of the women. Consumption of calories, fats, and carbohydrates was not related to income, but protein consumption was definitely associated with economic status. Such findings are important in view of the work of Burke, Harding and Stuart (1943) who note a consistent parallel between protein intake of mothers during the last six months of pregnancy and the heights and weights of their infants. Dieckmann et al. (1951) also note a significant increase in the physical health of babies as the consumption of protein was increased during the mother's pregnancy.

Ebbs, Tisdall, and Scott (1941) studied a large prenatal clinic population in Toronto during World War II and kept a record of dietary intake of pregnant women for one week. Half the women were noted to have a "poor diet": 1600-1700 calories per day, with 55 gm. of protein (85 gm. protein is usually recommended), and 1.0 gm. thiamin (1.5 gm. recommended). Within that group, a subgroup received a supplement without cost and containing additional 840 calories daily, and 15 mg. iron. The obstetricians and pediatricians who rated the pregnancies, labors, post partum periods and babies did not know to which group or subgroup the women belonged. Ratings for pregnancy were good, fair, poor, and bad, depending on minor complaints or major complications. 36% of the women who had received a poor diet had a poor or bad prenatal rating as opposed to only 9% of those who had received a good diet. For women of the first
group, duration of labor was 20.3 hours in average as opposed to 15.2 hours in the subgroup. Post-partum and baby ratings showed similar differences.

The Harvard School of Public Health and 2 Boston Hospitals conducted a longitudinal study of 200 women and their pregnancies (Kirkwood, 1955). After following the women for 20 years, the researchers concluded that good prenatal diet produced the best chance of insuring good physical condition of the child. Furthermore, nutrition of the mother was considered important not only during pregnancy, but also when she herself was a child. As Kirkwood himself summarizes "...Good obstetrical care [including good diet] is a very broad type of care that must start with the birth of the future mother, or even before that with her mother who is the grandmother of the baby we are discussing [1955, p. 317]."

Thus it is noted that the fetus or infant is affected not only by nutritional injury directly imposed upon it, it also suffers from the nutritional status of its mother. It has long been known that nutritional influences may be intergenerational (Boyd-Orr, 1936) and that the growth and functional capacity of an individual may be affected by the growth experiences of its mother. More specifically, it is noted that the nutritional history of the mother affects her growth (which in turn determines her ability to reproduce) as well as the intrauterine and birth experiences of the
offspring.

Bernard (1952) notes a relationship between a woman's nutritional history and her pelvic type. In comparing a group of stunted women in Aberdeen with well grown women, he notes that 34% of the shorter women had abnormal pelvic shapes conducive to disorders in pregnancy and delivery, as compared with 7% of the well-grown women. Greulich, Thomas and Twaddle (1939) also report that a long oval or rounded pelvis, functionally superior for childbearing, was more common in economically well-off and well-grown women than in less well-off and less well grown women. They also note that pelvic abnormalities are strongly associated with stunted growth.

Walker (1955) points out that "Good environment and adequate nutrition during childhood prevent flattening of the bony pelvis. Full nutrition during pre-puberty and puberty phases should allow the child to attain full potential height and physique, and the pelvis its maximal capacity [p. 30]."

Baird (1954) notes that short stature is five times as common among lower-class women than in upper-class women. He further notes that a relationship exists between short stature and reproductive complications. In 1949 he observed that fetal mortality rates of first borns were twice as high in women who were under 5'1" than in women who were 5'4" or taller. Baird and Illsley (1953) demonstrate that premature
births were twice as common in the shorter women. Thomson (1959), in analyzing the relation between maternal physique and reproductive complications for the more than 26,000 births occurring in Aberdeen over a ten year period, found short stature in women to be related to high rates of prematurity and problems of pregnancy such as fetal malformations, hemorrhage, and perinatal deaths at each parity and age level. He concludes that whatever the nature of the delivery, the fetus of the short woman has "less vitality and is likely to be less well grown" than that of the taller woman.

It is possible that the above findings simply reflect differences in social class composition of short and tall women based upon genetic differences rather than stunting as such. Baird (1964) tested such hypothesis by reexamining the data for perinatal mortality and prematurity rates by heights within each of the social classes for all Aberdeen births occurring between 1948 and 1957. He found that shortness in every social class was associated with an elevated rate of both prematurity and perinatal death. In further analyzing data from the all-Britain perinatal mortality survey of 1968, Baird confirmed the original findings. Illsley (1967) also summarizes several supportive studies.

Dayton, et al. (1968) in a longitudinal multidisciplinary research project in malnutrition and brain function conducted in Quatamala, analyzed the placentas from
pregnancies of women who had experienced life-time malnutrition and whose new-born babies were small. These placentas were comparable in weight to those found in normal pregnancies. However, they contained approximately one half of the quantity of DNA, RNA, protein and cells as the controls. This indicates an appreciable difference in the placental portion of the placental-fetal complex that may have significant effects on the transport mechanisms that provide for intrauterine nutrition.

Supportive animal studies may be noted at this point. Cowley and Griesel (1963, 1966) raised three successive generations of rats on a complete diet that contained 75% of the normal protein requirement thus producing animals of decreased size that were maintained throughout their lifetime on low protein intakes. The first generation of these rats performed normally on the Hebb-William closed field tests, but the second and third generations exhibited increasing evidence of retardation. The post-weanling third generation females were then nutritionally rehabilitated and mated. They produced pups that were increased in size compared to the previous offsprings, but which still showed evidence of retardation.

The above section represents highlights of the research evidencing a relationship between nutrition and mental function. The findings illustrate lowered mental performance in children that occur by malnutrition directly affecting
brain growth or by malnutrition inhibiting intellectual development through loss of learning time at critical stages of development. Of most significance is the nutritional status of the mother. Not only is the fetus affected by the influence of maternal nutrition during pregnancy, but the mother's lifeline of nutrition and dietary intake can influence her fertility and reproductive capability and the physiological and psychological well-being of her offspring. Nutrition, malnutrition and nutrition education must be appreciated, therefore, not only in terms of their effects upon this generation of children, but more emphatically, in terms of the effects upon their children.

Nutrition and Health and Disease: Some Consideration

The relationship between malnutrition and psychological development and learning is discussed in depth in the previous section in view of the importance of such relationship and its relevance to education. While the significance of the relationship between nutrition and psychological development is emphasized, there are health factors associated with malnutrition in general and with the need for nutrition in particular. These deem equal consideration, however, given the scope of this study, the relationship between nutrition and health and disease is not discussed in depth but rather is referred to for the purpose of providing the reader with some appreciation of the factors involved and with
bibliographical notations for further reference. The following health conditions and diseases are considered in view of their relationship to nutrition: Obesity (Stunkard, 1973); atherosclerotic disease (Keys, 1970; Mayer, 1973); hypertension (McGandy and Mayer, 1973; Johnson et al., 1965; Gsell and Mayer, 1962); diabetes (West, 1971; Root and Bailey, 1966; Root, 1959); cancer (Mayer, 1973); alcoholism (Williams, 1951).
CHAPTER FOUR

PRESENTATION OF FINDINGS

This chapter is central to objective number two and entails a presentation of findings related to the federal role in nutrition education in terms of legislation considered and/or acted upon, current federal policies or programs and hearings associated with these. The presentation of findings relevant to the federal role in nutrition education will be made in adherence to the following outline:

1. Policy Actors in Nutrition Education

2. The Role of Congress
   a) An overview
   b) Summary of legislation
   c) Legislation on nutrition related issues:
      1973-1977, according to sponsors
   d) Description of nutrition related legislation

3. The Role of the Administration
   a) An overview
b) A summary of nutrition education programs in terms of:
i) purpose
ii) form
iii) population served
iv) expenditures
c) Description of nutrition education programs

4. Hearings Associated with Nutrition Education
a) An overview
b) A summary of the hearings in terms of:
i) the need for nutrition education
ii) recommendations made
c) Highlights of hearings in terms of:
i) date of hearings
ii) the purpose of the hearings
iii) legislators present
iv) names of witnesses
v) testimony given
vi) statements made by legislators

1. **Policy Actors (Participants) in Nutrition Education**

Nutrition education was a priority during the Nixon Administration and was described as an important goal in the 1969 and 1971 White House Conferences on Health, Food and Nutrition and the 1974 National Nutrition Policy Study. Further hearings on nutrition education were held since
1972 and relevant legislation introduced since. Despite these facts there are only very few personalities involved in the issue either as legislators, advocates or opponents.

As mentioned earlier, Senator McGovern has led what appears to be a one man crusade toward the implementation of nutrition education in schools, universities and teacher-training institutes. Senator Humphrey has supported McGovern's efforts. Senator Schweiker, while he appears (in hearings) to be supportive, is interested in nutrition from the point of view of preventive medicine and has been active in introducing legislation relevant to nutrition education in medical schools. Senators Percy and Hart have indicated their distaste for the focus of some of the hearings and, as is evident in the hearings, have supported the position of the food industry. However, they have supported some of the legislation introduced by Senator McGovern.

It is also of interest to note the absence of many of the fourteen members of the Select Committee during relevant hearings. Several members have not made an appearance at any one of the hearings. Furthermore, a cursory review of hearings associated with other nutrition related issues reveals a regular attendance by many committee members.

Staff members of the Senate Select Committee on Nutrition and Human Needs are among the chief actors although their role in policy process may not be immediately apparent. They are active in all phases of the decision process and
hold the responsibility of researching issues and informing legislators. In their role as middlemen between the public and interest groups and policy makers they are noted to possess substantial power and to a great degree to determine eventual outcome.

Although nutrition education is referred to in terms of teaching of children and training of teachers, the only people advocating the cause are nutritionists, medical professionals and selected consumer lobbyists. Educators are represented only insofar as a number of school lunch personnel, who are really not given the status of educators—as they themselves claim—have testified for the need for funds to allow them to promote nutrition education in schools. The absence of educators may be indicative of lack of interest, however, the lack is the result of an apparent ignorance of the importance of nutrition education, a factor that provides further emphasis for the need for nutrition education.

Others participating in the decision process in nutrition education include representatives of the food industry, advertising agencies and television networks. It is to be noted that these representatives comprise groups and that their participation is defensive in nature.
2. The Role of Congress: An Overview

Investigations conducted by the author, involving both the reading of government documents and numerous interviews with leading officials and/or their staff revealed that the Congress has been since 1972, and still is, in the midst of efforts to institute national nutrition education programs and formulate a national nutrition education policy. It was further revealed that up to the present date only the Senate has been involved in nutrition education to any extent, and within the Senate, only three permanent committees have considered any bills related to nutrition education—the Senate Committee on Agriculture, Nutrition and Forestry; the Senate Committee on Labor and Public Welfare; and the Senate Finance Committee. However, these committees did not hold any relevant public hearings with the exception of current hearings on a bill—S. 1420—before Congress that were held in June, 1977.

Besides these permanent committees, the Senate Select Committee on Nutrition and Human Needs has been involved in nutrition education. The select committee was formulated in 1968\(^\text{14}\) and granted the responsibility of investigating the state of affairs and recommending action relevant to

nutrition policies. The committee, under the chairmanship of George McGovern, has held hearings on nutrition education in 1972 and 1973 in view of some of its members' efforts to introduce nutrition education legislation before the Senate. Other hearings wherein nutrition education was the topic of lengthy discussions were held in 1974 and 1976. However, the Select Committee does not have the power to decide the fate of any relevant legislation, thus, until the summer of 1977, the efforts on behalf of several of its members have been "killed" in various other committees. Furthermore, the Select Committee is scheduled to be phased out at the end of fiscal year 1977. In its place a Subcommittee on Nutrition, under the Chairmanship of George McGovern, is attached to the Senate Committee on Agriculture, Nutrition and Forestry.

Investigations as to the role of the House of Representatives in nutrition education revealed that none of its members are interested in nutrition education to the extent that Senator George McGovern, for example, is. However, in that the Senate has finally and for the first time approved a nutrition education bill--S. 1420--in July, 1977, the House Agricultural Subcommittee on Domestic Marketing, Consumer Affairs and Nutrition, under the current chairmanship of Congressman Fred Richmond, will hold hearings on nutrition education in late October, 1977. Also, relevant field hearings are scheduled to be held through the first part of 1978. According to Dr. Joseph Krapa, staff consultant on
Nutrition to the House Subcommittee, the purpose of the hearings is to "ascertain the federal role in nutrition education and determine if current efforts warrant change." In preparation for the hearings Congressman Richmond directed the Legislative Research Service of the Library of Congress to research the extent of nutrition education programs currently funded by the Federal government.

Staff members of the House Subcommittee refused to identify the names of witnesses scheduled for the hearings in October, 1977. However, and through other means, the author determined that several of the witnesses who had appeared before the Select Committee in 1972 and 1973 will appear before the House hearings. While it cannot yet be determined that the forthcoming hearings are not merely a repetition of the 1972 and 1973 events, this may indeed be the case. Subsequent questioning of House Subcommittee staff revealed that, according to them, the difference between the Senate and House hearings rests on the fact that the House hearings will center around the consumer and the role of advertising. As subsequent readings will reveal, that has also been the case with the Senate hearings, although it is admitted, as the House staff pointed out, that in terms of final outcome the Senate members appear to concentrate on nutrition education programs in schools and universities.
As is made evident by the findings that follow, the Senate, the most nutritionally interested of the two houses of Congress, has not been receptive to nutrition education issues despite the undying enthusiasm, prevalent as early as 1969, of George McGovern and several members of the Select Committee. In trying to ascertain the present mood in the House toward nutrition education, it is revealed that "nutrition education certainly isn't a big topic...Congressmen are interested in welfare and energy..."\(^{15}\)

Legislation: A Summary

As is evident by legislation introduced before Congress, much of the interest of members of the Senate Select Committee on Nutrition and Human Needs is attributed to food aid programs. Between 1973 and 1977, seventy-nine bills were introduced. Of these, forty-six were related to food aid programs, seventeen of which became law.

With reference to nutrition education, twelve bills were introduced, seven of these were specifically related to nutrition education and five were only peripherally related in that nutrition education was only an addition to major provisions. Two bills became law, and both were peripherally related to nutrition education and both were attached to major food aid provisions.

\(^{15}\)As quoted by a House Subcommittee staff member.
Of the twelve nutrition education bills introduced between 1973 and 1977, seven were referred to the Committee on Agriculture and Forestry, four were referred to the Committee on Labor and Public Welfare and one was referred to the Committee on Finance.

Three of the bills were introduced in conjunction with a companion bill.\(^{16}\) Of these, S. 1005, and S. 1063 (93rd Congress) became law. S. 1945, known as the national nutrition education act, did not get past committee.

Senator McGovern has been the most active in nutrition education legislation. In 1974 he introduced the first national Nutrition Education Act - S. 3864 - which provided for grants to states to institute nutrition education in schools and universities. He reintroduced the same bill in 1975 as S. 1945. Both times the bills were referred to committees where they "died." In 1977, in conjunction with Senator Humphrey, McGovern introduced S. 720 that would have appropriated $25 million in federal funds for comprehensive nutrition education programs in schools and universities, nutrition education research and nutrition education coordinators at the state level. At the same time McGovern introduced S. 1420 that is referred to as an amendment to the School Lunch Act and Child Nutrition Act of 1966. The major thrust of S. 1420 is nutrition education as provided for in

\(^{16}\)Companion bills denote an interest to pass the bill.
S. 720. However, nutrition education is referred to as the last of three amendments. One of the amendments is related to the revision of the special milk program which set free $25 million, the objective being that those funds would be used for nutrition education. S. 1420 passed in the Senate but failed to make any impact in Congress. However, in view of the Senate support for S. 1420, the House will begin to investigate the issue of nutrition education.

Table 3
Breakdown of Bills

93rd Congress: 1973-1974

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<td>6</td>
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<tr>
<td>Total Passed</td>
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<td>12</td>
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The Legislative history of nutrition education was traced only as far back as 1973 in view of the fact that specific hearings on nutrition education were not held until December 1972. For description of bills see page 78.
Table 3 (continued)

94th Congress: 1975-1976

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<td>passed</td>
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95th Congress: 1977-1978

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<td>8</td>
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Table 4
Legislation Relevant to Nutrition Introduced by Members of the Senate Select Committee on Nutrition and Human Needs

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18Description of these follow on page 78.
### Table 4 (continued)

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*Bills related to Nutrition Education.
Description of Legislation

93rd Congress

S. 255 (P.L. 93-86)—To repeal certain provision of the Food Stamp Act of 1964 and Section 416 of the Agricultural Act of 1949 in order to maintain the eligibility of low-income aged, blind, and disabled persons who would become eligible Jan. 1, 1974 because of their participation in the supplemental security income program under the Social Security Act. (Also S. 1888.)

*S. 324—To amend the Public Health Service Act to provide for nutrition education in schools of medicine and dentistry. (Also S. 3585.)

S. 405—To amend the Federal Food, Drug and Cosmetic Act, relating to food additives.

S. 408 (P.L. 93-86)—To amend the Food Stamp Act of 1964 in order to prohibit the distribution of food stamps to any household where the head of the household is engaged in a labor strike. (See S. 1888.)

S. 549 (P.L. 93-86)—To establish a new commodity distribution program under which all recipients would be given nutritionally adequate diets. (Also S. 1888.)

S. 500—To abolish 23 categorical child nutrition programs and establish a new comprehensive program in the Department of Health, Education, and Welfare.

*S. 1005 (P.L. 93-150)—To amend the National School Lunch Act to authorize the Department to prohibit the offering of competitive foods during school lunch hours, and to provide for nutrition education and research programs. (Also H.R. 9639.)

S. 1037 (P.L. 93-13)—To amend the National School Lunch Act to authorize grants in lieu of commodities for use in child nutrition programs during fiscal year 1973. (Also H.R. 4278.)

*S. 1063 (P.L. 93-150)—To amend the Child Nutrition Act to increase the minimum school lunch payment from 8 cents to 12 cents, to increase the payment for lunches for needy children from 40 to 45 cents, and to establish a nutrition education program. (Also H.R. 9639.)

S. 1657—To authorize open-end appropriations for the food stamp program through fiscal year 1977.

S. 1669—To authorize open-end appropriations for the food stamp program through fiscal year 1977; and to make changes in the program relating to eligibility, work requirements, and administration.

S. 2409 (P.L. 93-150)—To amend the National School Lunch and Child Nutrition Acts for the purpose of providing additional Federal financial assistance to the school lunch and school breakfast programs. (Also H.R. 9639.)
S. 2488—To amend title VII of the Older Americans Act of 1965 relating to the nutritional program for the elderly to provide an authorization of appropriations, and for other purposes.

S. 2845—To amend the Federal Food, Drug, and Cosmetic Act in order to protect consumers against food additives which have mutagenic or teratogenic effects on man or animal.

S. 2871 (P.L. 93-347)—To amend the Agriculture and Consumer Protection Act of 1973 and the Food Stamp Act of 1964 to continue the nonsurplus commodity distribution program after July 1, 1974; adapt the food stamp program to Indian reservations; and to authorize payment of 62.5 percent of all State administrative expenses under the food stamp program. (Also S. 3458.)

S. 3123—To establish a universal food service program for children.

S. 3239 (P.L. 93-326)—To amend the National School Lunch and Child Nutrition Acts in order to authorize the use of certain funds to purchase agricultural commodities for distribution to schools and other eligible outlets; to increase the appropriation authorization for nonfood assistance funds; and to provide additional financial assistance to the special milk program. (Also H.R. 14354.)

S. 3388 (P.L. 93-326)—To amend the Child Nutrition Act to require the expenditure of $131 million of appropriations or section 32 funds for the special supplemental food program for women, infants, and children in fiscal 1975. (Also H.R. 14354.)

S. 3458—(See S. 2871.)

S. 3459 (P.L. 93-326)—To amend the National School Lunch and Child Nutrition Acts to set a minimum of donated commodities for school lunches and to increase the appropriations authorization for the supplemental food program for women, infants, and children. (Also H.R. 14354.)

S. 3498 (P.L. 93-288)—To amend section 5 of the Food Stamp Act of 1964 to broaden the authority to the Secretary of Agriculture with regard to providing emergency food assistance to victims of disasters.

S. 3655 (P.L. 93-335)—To amend the Food Stamp Act of 1964 to provide that effective July 1, 1974, the eligibility for food stamps of participants in the supplemental security income program shall be determined solely on the basis of the uniform national eligibility standards for nonpublic assistance households.

*S. 3864—To authorize the Commissioner of Education to make grants for teacher training pilot and demonstration projects, and comprehensive school programs, with respect to nutrition education and nutrition-related problems.
*S. 3867--To amend the Federal Food, Drug, and Cos-metic Act to promote honesty and fair dealing in the in-terests of consumers with respect to the labeling and ad-verting of special dietary foods, such as vitamins and minerals, etc.

S. 4160--To provide for the purchase of animals and animal food products for use in foreign and domestic food relief programs, and for other purposes.

S. 4245--To amend the Agricultural Trade Development and Assistance Act of 1954 to prohibit the disposition of food to foreign countries under such act in any fiscal year unless the Secretary of Agriculture determines and certifies that all domestic feeding programs will be adequately pro-vided with appropriate foods in such fiscal year.
94th Congress

S. 13—To amend the Food Stamp Act of 1964 to reduce the limit on payments for food stamps from 30 percent of gross income to 25 percent; to make SSI participants eligible for food stamps; and to provide for use of food stamps for meals-on-wheels for incapacitated persons under 60 years of age.

S. 35 (P.L. 94-4)—To defer the proposed March 1 increase in payments for food stamps until June 30, 1975.

S. 250—To prevent increases in cost of coupons to food stamp recipients. (Also S. 35.)

S. 455—To amend the Agricultural Trade Development and Assistance Act of 1954 to prohibit the disposition of food to foreign countries under such act in any fiscal year unless the Secretary of Agriculture determines and certifies that all domestic feeding programs will be adequately provided with appropriate foods in such fiscal year. (See S. 1305.)

S. 548—To define the term "food supplement" as it appears in the Federal Food, Drug, and Cosmetic Act; and to prohibit the Secretary of Health, Education, and Welfare from limiting ingredients in food supplements unless such articles is intrinsically injurious to health in the recommended dosage.

S. 641—To require under the Federal Food, Drug, and Cosmetic Act, all food processors to develop, implement, and maintain safety assurance procedures; direct the Secretary of Health, Education, and Welfare to promulgate regulations when he finds that existing regulations are not adequate; direct the Secretary to establish a uniform system of coding packaged foods to identify their source; require all establishments in which food is handled to be registered with the Secretary; and to require the labeling of certain foods with respect to dating, ingredients, and nutritional content.

S. 850 (P.L. 94-105)—To amend the National School Lunch and Child Nutrition Acts in order to extend and revise the special food service program for children, the special supplemental food program for women, infants, and children and the school breakfast program, and for other purposes related to strengthening the school lunch and child nutrition programs. (Also H.R. 4222.)

S. 881—To establish an Office of Feed Administration for a temporary period in order to develop coordinated national policies on domestic and foreign food assistance programs.

S. 882 (P.L. 94-105)—To extend and revise the special supplemental food program for women, infants, and children. (Also H.R. 4222.)
S. 894—To establish a universal food service program for children.

S. 924—To declare unsafe for human consumption, under the Federal, Food, Drug, and Cosmetic Act, any additive found to be mutagenic, teratogenic, or embryotoxic effects on man or animal, unless the hazard that might result to the public health by denying the use of such additive exceeds the danger which might result from permitting its use. Directs the Secretary of Health, Education, and Welfare to require a label on any food using such potentially harmful additive to clearly indicate that such additive has been found to have harmful effects.

S. 925—To direct the Secretary of Health, Education, and Welfare to contract with qualified individuals, organizations, or institutions to conduct tests or investigations on the use of any food additive.

S. 963—To amend the Federal Food, Drug, and Cosmetic Act to prohibit the administration of the drug diethylstilbestrol (DES) to any animal intended for use as food, and other purposes.

S. 981—To amend the Food Stamp Act of 1964 to increase the Federal share for State administrative expenses in carrying out the food stamp program, to authorize the sale of coupon allotments in credit unions, and for other purposes.

S. 1305—See S. 455.

S. 1309—To amend the National School Lunch Act to authorize the Secretary of Agriculture to regulate the use of competitive foods during school lunch hours.

S. 1522—To continue the special food service program for children, the school breakfast program, and the special supplemental food program for women, infants, and children through September 30, 1976, and for other purposes. (Also H.R. 4222.)

S. 1627—To amend the Food Stamp Act to increase the food stamp allotment, provide for 30-day certification upon application, and to make other changes in the food stamp program.

S. 1662 (P.L. 94-44)—To amend the Food Stamp Act to extend for one year the eligibility of participants in the special supplemental income program for food stamps. (Also H.R. 6698.)

S. 1692—To limit the authority of the Secretary of Health, Education, and Welfare, under the Federal Food, Drug, and Cosmetic Act, to regulate vitamins and minerals.

S. 1694—To extend the temporary eligibility of supplemental security income recipients for food stamps for an additional twelve months.
S. 1780 (P.L. 94-28)—To continue the special supplemental food program for women, infants, and children through September 20, 1975.
*S. 1945—To authorize the Commissioner of Education to make grants for teacher training, pilot and demonstration projects, and comprehensive school programs, with respect to nutrition education and nutrition-related programs.
S. 1993—To reform the Food Stamp Act of 1964 by improving and making more realistic various provisions relating to eligibility for food stamps and administrative responsibility for the food stamp programs, and for other purposes. (Also H.R. 8145.)
S. 2107—To prohibit under the Federal Food, Drug, and Cosmetic Act, the Secretary of Health, Education, and Welfare from making certain regulations regarding vitamins and minerals.
S. 2451—To amend the Food Stamp Act of 1964 by revising eligibility standards, the method of determining the amount of the coupon allotment, and the administration of the program by State agencies.
S. 2537—To reform the Food Stamp Act of 1964 by improving the provisions relating to eligibility, simplifying administration, and tightening accountability.
S. 2765—To repeal the authority, under the Color Additives Amendments of 1960 for provisional listings of commercially established colors.
*S. 2840—To amend the Food Stamp Act of 1964 with respect to eligibility standards for households; to establish a program of food coupon grants and eliminate the requirement that food coupons be purchased; to establish a program of nutrition education for recipients of coupons; and to authorize the use of food coupons to purchase "meals on wheels."
S. 2853—To amend the Food Stamp Act of 1964 to insure a proper level of accountability on the part of food stamp vendors.
S. 2867—To rename the Department of Agriculture the Department of Food, Agriculture, and Rural Affairs; to establish within the executive branch the Office of Food and Nutrition; to establish a National Nutrition Monitoring System.
S. 2905—To authorize Federal payment of administrative costs to improve the special supplemental food program for women, infants, and children.
S. 3136—To amend the Food Stamp Act of 1964 to revise the eligibility requirements for the food stamp program; to direct the establishment of procedures for controlling and accounting for food coupons by vendor; define the value of the coupon allotment for an eligible household and the
charges to be made therefor; extend the benefits of the program to a maximum number of eligible applicants; and to expedite procedures for the determination of eligibility and for the payment of wrongfully denied coupons.

S. 3585—To amend the Older Americans Act of 1965 to provide a national meals-on-wheels program for the elderly, blind and disabled and for other purposes.

*S. 3449—To authorize the Secretary of Agriculture to provide for the nutritional training of food service and educational personnel and to conduct nutrition education activities in schools and child care institutions eligible under the School Lunch and Child Nutrition Acts; and to establish within the National Agriculture Library of the Department of Agriculture, a Food and Nutrition Information and Education Resources Center.
95th Congress

S. 203—To amend and extend the Agricultural Act of 1970.
S. 248—To establish a National Agricultural Research Advisory Board.
S. 519—To amend the Older Americans Act of 1965 to provide a national meals-on-wheels program for the elderly.
*S. 720—To authorize the Secretary of Agriculture to carry out a program of nutrition information and education as a part of food service programs to children conducted under the School Lunch Act and Child Nutrition Act.
S. 845—To amend the Food Stamp Act of 1964.
S. 903—To amend the Food Stamp Act of 1964.
S. 928—To extend through Fiscal Year 1982 certain child nutrition programs under the National School Lunch Act of 1966.
S. 1046—To amend the Federal Food, Drug, and Cosmetic Act to authorize an evaluation of the risks and benefits of certain food additives and to permit the marketing of saccharin until such evaluation can be made.
S. 1094—To permit the States to consolidate and recognize certain food programs administered by the Department of Agriculture for the benefit of needy persons.
*S. 1116—To amend Title XVIII of the Social Security Act to include, as a home health service, nutritional counseling provided by or under the supervision of a registered dietitian.
S. 1170—To strengthen the surplus commodities provision of the Older Americans Act of 1965.
S. 1223—To establish a National Commission on Food Production, Processing, Marketing and Pricing to study the food industry from producer to consumer.
S. 1251—To establish a universal food service program for children.
S. 1283—Home delivered meals to the Elderly Act.
S. 1402—To establish a National Agricultural Research Extension and Teaching Policy Advisory Board.
*S. 1420—To amend the National School Lunch Act and Child Nutrition Act of 1966 in order to revise and extend the food program, revise the special milk program, revise the school breakfast program, to authorize the Secretary of Agriculture to carry out a program of nutrition information and education as part of food service programs for children conducted under such Acts.
Table 5
Further Analysis of Bills Related to Nutrition Education

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3. **The Role of the Administration: An Overview**

There are several programs in the Department of Agriculture (USDA) and the Department of Health Education and Welfare (DHEW) that are either specifically related to nutrition education or include some form of related activity. On the whole, the programs are related to low income families and reflect changes that occurred in the late 1960's when efforts to alleviate hunger were interpreted in terms of education for the poor. Other programs that serve children, special groups or low-income families purport to include nutrition education although in many cases the extent of such efforts is not known. It is of interest to note that there is no legislation relevant to the appropriation of funds for nutrition education for these programs. However, in that members of the administration were called in to testify on nutrition education it seems that they have taken it upon themselves to provide for nutrition education.

A review of the hearings on nutrition education indicates the defensive nature of the various administrations since 1972. When called to testify representatives of the administration purport support for Nutrition Education. However, they also note the great extent to which they already provide for nutrition education. The views of the present administration were made clear in recent hearings wherein the representatives of the administration fought against providing states with $25 million for nutrition
education and suggested instead that they use $1 million in pilot programs throughout the states. The $1 million referred to was money legislated several years ago but never requested by the past Administration.

The Office of Education: In that nutrition education for school children and teachers has been the subject of discussion since 1972, it is of interest to note that the Office of Education reflects very little interest. Follow Through, a program for primary grade children in the Office of Education, provides for $590,000 per year for nutrition education. However, no analysis has ever been made as to how the funds are allocated or if they are used for the purpose of nutrition education by the individual states. Although it is noted that at least ten programs within the Office of Education are related to nutrition education, such fact is only evident in three programs related to handicapped children.

Nature of Federal Nutrition Education Programs: A Summary

In Terms of Purpose:

Major federal nutrition education programs are administered by the Department of Agriculture (USDA) and the Department of Health, Education and Welfare (DHEW). An analysis of Program Description (see page 92) reveal that these programs generally fall into one of three categories depending on the extent to which they are related to nutrition
education in terms of the purpose/goal of the program:

1. **Primary** category defines programs that are specifically established for the purpose of providing nutrition education.

2. **Secondary** category defines programs wherein nutrition education is a support service in the effort to reach overall goals.

3. ** Peripheral** category defines programs that could potentially be interpreted to include nutrition education but are only remotely related to nutrition education.  

Of the thirty-two programs, eight are within USDA, four of which are in the primary category. Of the twenty-four programs within DHEW, only one is in the primary category, seventeen are in the secondary category, and six are in the peripheral category.

*In Terms of Form:*

These programs provide nutrition education in the form of:

a. Direct services to the population

b. Publication for the consumer or professional

c. Training (or the provision of funds for training) of people entering related careers and those

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19 These categories were conceived of and defined by the author.
already working in federal nutrition programs
d. Nutrition education research
e. Advertising and labeling which ultimately result in education

Using the above forms, it can be noted that of the thirty-two programs, only four have any direct contact with the population, and only one of the four programs is primarily related to nutrition education.

Three other programs, of secondary nature, make provisions for some form of contact with the population, mostly in terms of dietary counselling.

In terms of publications of materials and information for the consumer or professional, there are ten programs, four within USDA and six within DHEW. Six of these also provide research funds.

Four programs offer training of professionals and all four are related to the health section of DHEW. There are two more programs related to training of other workers in related fields.

In terms of advertising and labeling, the Food, Nutrition and Health Campaign contributes to advertising, the National Institute of Arthritis, Metabolism and Digestive Diseases issues press releases. The Federal Trade Commission regulates advertising and the Federal Drug Administration mandates and regulates food labeling. These activities were not mandated by legislation.
For four of the programs under the secondary category it was not possible to ascertain the nature or extent of the nutrition education component despite the availability of funds for the purpose. These programs include Head Start, Follow Through, Nutrition Program for the Elderly and the School Health and Nutrition Service.

**Population Served:**

Using eligibility requirements as set up by some programs, as well as program description, it can be determined what segment of the population is being served. Of the thirty-two programs, eight are related to low-income families, fifteen are related to the general public by virtue of the fact that:

a) they are related to professionals who may in turn serve the population in general, or

b) they provide services through research or publications that potentially reach the population in general.

Two programs are related to children and seven are related to special groups.

**Expenditures:**

According to information elicited by the Legislative Research Service of the Library of Congress, expenditures for nutrition education in fiscal year 1976 were:
USDA: $60,974,887  
DHEW: $ 5,843,000  
Total: $66,817,887

This figures represents a minimum and takes into account only eleven of the thirty-two programs described. However, for the rest of the programs there was no breakdown as to the amount of money spent on nutrition education.

Description of Federally Funded Nutrition Education Program

I. Department of Agriculture: (USDA)

There are four areas within the Department of Agriculture that either provide actual instructional nutrition education programs or conduct/fund relevant research.

A. Extension Services

Within this area the Expanded Food and Nutrition Program (EFNP) is specifically related to nutrition education. EFNP is a structured program for low income adults and youth age 9-19. Its spending for FY 1976 was over $50 million, representing the largest amount allotted to any one nutrition education program within the federal government.

Program sites are determined by the States on the basis of the number of poor people in the area and of the availability of professional staff. The population served by this program comprises low income families; 78% of the

20 For further analysis see Appendix B.
255,471 families enrolled in 1976 had incomes less than $5,000, and 40% had incomes less than $1,000 per year.

The program is administered and delivered as two separate components. The adult component focuses on the homemakers, defined as individuals responsible for preparing family meals and/or at times, as being the members of the family with poorest nutrition. Under this component paraprofessionals, known as aids, are hired and trained to work with individual homemakers or small groups. The aids live in the communities and are required, among their duties, to locate families needing services through a door-to-door approach and neighborhood contacts.

Topics covered by the aids include the relationship of food to health, key nutrients—their importance and sources, how the body uses food, meal planning and comparative food shopping. A 24-hour dietary recall is used by the aids to measure food practices and nutrition needs as well as progress of those enrolled.

The youth component of the EFNP utilizes volunteers and aids who are trained. Program sites include such settings as camps and 4-H clubs. The Extension Services publishes and disseminates materials to be used by Extension Agents in training of volunteers and aids, as well as materials and giveaways used as instructional aids.

Other activities within EFNP include general information on nutrition, money management and food purchasing that
is disseminated in the form of publication or through the use of public media by the Extension Service agencies throughout the nation. These materials are also used for training school lunch cooks, Headstart workers and managers of nursing homes. For these latter activities, $10 million was spent in FY 1976 (in addition to the $50 million spent for EFNP).

B. Agriculture Research Service (ARS)

The Consumer and Food Economics Institute, part of ARS, is divided into three components: The Nutrient Data Research Center, The Food Consumption Group, and the Food Diet Appraisal Group. The latter group supports nutrition education, prepares food guides and food plans; constructs lists of foods and nutrients available to the nation's population; monitors trends in per capita food and nutrient consumption; compiles data for the consumer's use of foods, including pamphlets on recipes, canning, freezing, and food safety. It also cooperates in the above capacities with the School Lunch and Food Stamp Programs.

The Institute also administers research programs designed to develop nutrition knowledge needed by the consumer and federal officials working with low income families. Research topics are developed as results of letters sent to the Institute, articles of public interest, areas of concern and literature reviews. The Institute further publishes "Nutrition Program News" for community and professional
nutritionists. $340,100 was utilized by the Institute in FY 1976 although this amount does not represent expenditures exclusive to nutrition education.

C. Food and Nutrition Service (FNS)

FNS was established in 1969 to eliminate poverty caused hunger in the United States. The service is responsible for food assistance programs administered out of six regional offices: on the state level, The Food Stamp Program is administered by the State Welfare Agency, The Child Nutrition Programs are administered by the States' Educational Agency, The Supplemental Food Program for Women, Infants and Children (W.I.C.) is administered by participating State Health Departments, Indian Tribes or groups recognized by the Department of the Interior, or by the Indian Health Service, DHEW.

The Food Stamp Program has no appropriations for nutrition education but through the use of administrative funds, limited printed materials are produced and sent to individuals upon request. Nutrition information is also written on the inside cover of food coupon booklets.

Child Nutrition Programs serve all children attending participating schools. Funds for nutritional training, education and surveys were authorized by Public Law 91-248 not to exceed 1% of the funds for administering the programs. Under Section 6a of PL 91-248, the funds are for (a) grants to State Educational Agencies and (b) cooperative and
The Supplemental Food Program for Women, Infants and Children (W.I.C.) serves women and children 0-5 years who are nutritional risks due to income level or inadequate nutrition. The program provides for a specified amount of milk and dairy products to be delivered to the home as well as for dietary counselling. Under PL 94-105, 25% of the States' total funds for WIC are used for administrative functions, 50% of which is allotted to nutrition education. Thus, the potential of $12,500,000 out of the yearly appropriation of $250 million for the program may be used for nutrition education. However, there is no overall administration of the activities provided by individual WIC projects. Thus, it is not known the extent to which nutrition education is provided. It is noted that States do provide projects with related materials.

The Food and Nutrition Information Center (FNIC) was established in 1971 using a portion of the Child Nutrition Division Federal Operating Funds. FNIC is located at the
National Agricultural Library and serves as a repository of instructional materials related to food and nutrition, nutrition education, nutrition research, training and instruction of food service personnel and other materials pertinent to the Child Nutrition Programs. FNIC is required to disseminate such materials to participating USDA programs as well as to State Educational Agencies. $275,238 was utilized in FY 1976.

D. Cooperative State Research Service (CSRS)

CSRS was established in 1961. In this service some funds are available for nutrition education research. Current studies include such topics as Nutrition Improvement—of the teenager, of the child; Changes in Food Practices; Nutritional and Psychological Approaches to Behavioral Control of Overeating; and the Impact of the Media on Nutrition Education.

In addition to these four areas within USDA, the Special Reports Division of the Office of Communication is involved in nutrition education through funds provided by the other sections of the Department as described above. The Office of Communication coordinates all information work in the Department, reviews for final clearance all information released to the public and coordinates federal and state agencies' information activities. Thus, this office serves as a clearinghouse for published nutrition education efforts.
In 1943 an Interagency Committee on Nutrition Education (ICNE) was established by Executive order. This committee provided a forum to people involved in nutrition education to present and develop concepts in the field. It also acted as a clearinghouse for nutrition education programs and other efforts, across federal sectors. However, ICNE disbanded in 1973 as a result of PL 93-143 section 608 which prohibited the use of appropriate funds to finance intradepartmental boards, commission or committees without prior specific congressional approval. Since 1973 then there has been no nutrition education 'core' within the federal government.

Department of Health, Education, and Welfare

Nutrition education programs sponsored by DHEW are provided as part of various other efforts and within 9 sections of the Department.

A. The Administration of Aging (AOA)

AOA includes a Nutrition Program for the Elderly, particularly those with a low income. It was authorized under Title VII of the Older Americans Act of 1965, as amended by PL 92-258. Although regulations specify the provision of nutrition education, as a secondary activity, there are no employees engaged in nutrition education at the Central Office. However, it is stated that each state must prepare a state plan that includes nutrition education for the
elderly in order to receive Federal Funds. The extent that nutrition education is provided by individual states is not known to federal officials.

B. The Office of Child Development (OCD)

OCD administers the Head Start Program. The objectives of the program are to provide low income children with comprehensive education, social, health, and nutrition services in order to help them develop social competencies or the ability to cope with everyday life. Parent involvement is integral to the program as is providing parents with information about child development, health and nutrition. OCD further requires an organized nutrition education program for "staff, parents and children" as part of the Performance Standards upon which funding is based. However, no money is specifically allocated for nutrition education, nor are OCD officials able to determine the extent of nutrition education efforts within individual Head Start programs. OCD has, however, published a guide called, "Project Head Start - Nutrition Education for Young Children."

C. Office of Consumer Affairs

The Food, Nutrition and Health Campaign of the Office of Consumer Affairs was specifically developed to increase public awareness of the importance of good nutrition to good health. Conducted by the Advertising Council, the campaign is sponsored and funded by the Office of Consumer Affairs, the Office of Communications, the Office of the Secretary
of the Department of Agriculture and the Grocery Manufacturers of America as well as the National Academy of Sciences. Activities include printed material as well as public service commercials. Expenditures for FY 1976 were $160,000 of which $50,000 was contributed by Private funds.

D. Office of Education (OE)

Within the Office of Education, 11 sections purport to provide a form of nutrition education.

1. Consumer and Homemaking Education, Part F

Under PL 90-576, educational programs for vocational home economics education are provided. These include nutrition education, as well as the preparation of teachers in homemaking and nutrition. The program is administered at the Federal level by the Bureau of Occupational and Adult Education. The program is technically available to all ages from pre-school through older Americans as well as to persons in mental institutes. There is no income boundary, however, specific funds are set aside for economically depressed areas. There is no breakdown of the amount spent on nutrition education. The total expenditure of the entire program was $41 million in FY 1976.

2. Follow Through Program

The program serves children from low income families (K-primary grades). It is administered on the Federal level by the Division of Follow Through within OE and provides
nutrition and health, among other, services. Included in these services are routine screening tests, health evaluation, and treatment. According to information supplied by the Department (to the Legislative Research Service), 10% of the program funds are used for nutrition education. In FY 1976, this amounted to $590,000. However, there are no indications as to how (and if) the money was used at the state and local level.

Other programs within the Office of Education which peripherally provide nutrition education include:

a. The Library Services and Construction Act Program which assists in the development of public library services that potentially include nutrition education materials.

b. Part B. Basic Grants, State Vocational Education Programs - Occupational Home Economics Education. This program serves to prepare persons for employment in food production, management and services with provision of nutritional knowledge.

c. Consumer's Education which provides consumer knowledge to the general public has been funded for only one year. Nutrition education is presented in terms of food safety and food purchasing.

d. Adult Education Program provides opportunities for adults to continue their education. Nutrition education is included in such subjects as health, consumer economics and occupational knowledge.
e. School Health and Nutrition Services for Children from Low-Income Families was established to demonstrate ways to organize comprehensive health and education services through coordination of existing resources.

f. Centers and Services for the Blind appropriate 20% of their funds for nutrition education for blind children as well as related workshops for parents and teachers.

g. Severely Handicapped Children and Youth also appropri­ates 2% of its funds to nutrition education directed primarily at the parent.

h. Handicapped Children Early Education Program includes a nutrition education component that is directed at helping children become familiar with foods that are helpful in overcoming the child's handicaps as well as parent edu­cation. Approximately 5% of the funds are used for nutri­tion education.

E. Health Services Administration (HSA)

HSA, through four bureaus, provides health services that include nutrition and nutrition education:

1. The Bureau of Community Health Services administers such programs as Maternal and Child Health (MCH), Family Planning (FP), and many others. These include services such as the assessment of nutritional status, diagnosis of nutri­tional problems and dietary counselling as part of preven­tion and treatment. The major portion of the nutrition edu­cation efforts are aimed at nurses, physicians, and other
health professionals. About 0.5% of the total funds are available for nutrition education.

2. Indian Health Service provides medical care to Indian and Alaskan Natives. It includes a Nutrition and Dietetics Branch that provides inservice education and training in nutrition for physicians, nurses and other health team members. It also publishes nutrition education pamphlets that take into account cultural diversity in food habits.

3. Bureau of Quality Assurance is responsible for ensuring the quality of care in the medicare, medicaid and maternal and child health programs. It employs dietitians and/or nutritionists to survey health facilities and provide related counseling to health officials.

4. Bureau of Medical Services, Department of Hospitals and Clinics. This program serves federal employees and their beneficiaries. Regarding nutrition, the program provides food services to hospital patients as well as nutrition education/counseling for both in and out-patients.

F. National Institutes of Health (NIH)

NIH is the primary source of federal support for biochemical research.

1. The National Heart and Lung Institute supports nutrition education through public education, training of professionals and paraprofessionals and nutrition education research in terms of contents and modes of delivery.
2. The National Cancer Institute. At this time nutrition education efforts are limited to the preparation of related materials.

3. National Institute of Arthritis, Metabolism, and Digestive Diseases, is primarily concerned with medically oriented nutrition research. However, along with the National Education Association (NEA), it distributes a booklet, "Facts About Nutrition," through advertising. The Institute is also responsible for a column series entitled "search for health" that includes nutrition facts. The major portion of the Institute's nutrition education efforts occur in conjunction with training of professionals and scientists in nutrition and nutrition research.

G. Health Resources Administration

Its nutrition education efforts include training of health professionals and publication for use in such training workshops as well as research that would serve as the basis for future nutrition education programs.

H. Office of Health Information and Promotion

The Office of Health Information and Promotion was established in June 1976 (PL 94-317) to become operative in October 1976. It has the responsibility for departmental coordination and policy development of health and nutrition education programs. Furthermore, legislative mandate requires that the office prepare a program report on nutrition education. As of this date, no money has been appropriated.
I. The Food and Drug Administration (FDA)

FDA began as part of USDA and has since transferred to DHEW. Its primary function is to enforce laws to ensure that foods are wholesome, that drugs are safe and cosmetics harmless, and that labels are truthful. Chief among these laws is the Federal Food, Drug, and Cosmetic Act.

Food and nutrition labeling, which may be viewed as a form of nutrition education is regulated by the FDA under the Federal Food, Drug, and Cosmetic Act (as amended) and the Fair Packaging and Labeling Act.

The FDA initiated its nutrition labeling efforts in 1973, following several years of work that received much of its impetus from the 1969 White House Conference on Food, Nutrition, and Health. Food labels are now required to contain, under the heading "nutrition information," serving size; servings per container; caloric content; protein content; carbohydrate content; fat content; and percentage of U.S. Recommended Daily Allowances (US-RDA's) of protein, vitamins A, C, thiamine, riboflavin, niacin, calcium, and iron—all on a per serving basis.

FDA has also been active in numerous surveys on consumer knowledge about nutrition as well as studies to identify problem areas, monitor nutrition labeling and educate consumers in the meaning and use of nutrition labels. These were conducted between 1974-1976 and are expected to be the basis of further nutrition education programs.
FDA's Division of Nutrition conducts a program, "Nutrition Today Grant Professionals," to develop new teaching aids, survey users of teaching aids and identify the audience for whom nutrition education teaching aids are of potential value. $59,278 was appropriated for the program's first year (1975).

FDA's Office of Professional and Consumer Programs has been engaged in research to promote nutrition education in medical schools (due to legislative authority).

The Office of Public Affairs publishes and distributes a number of articles, brochures and consumer memos, also under the legislative authority of the Federal Food, Drug, and Cosmetic Act, as amended.

J. The Federal Trade Commission (FTC)

Over the past few years, the FTC has become increasingly more involved in food and nutrition advertising. The commission "Food and Nutrition Advertising" program, established in 1975, attempts to deal with the prevention of misleading nutrition claims as well as the increase of the reliability of advertisements as the basis upon which consumers may make informed product choices.

In 1974 the Commission proposed a specific trade regulation rule (TRR) on food advertising that would regulate nutrient claims, nourishment claims, and energy and calorie claims. Hearings on the proposed rule have been held since 1975. FTC's Office of Policy Planning and Evaluation has
analyzed the proposed rule and concluded that it might be too strict and that it would encourage the consumer to rely too heavily on advertising claims.

The FTC is also involved in various enforcement actions against food advertisers (see table 6 below).

### Table 6

Recent FTC Actions in Food Advertising

<table>
<thead>
<tr>
<th>Company</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>RJR Foods</td>
<td>Dkt. C-2424, July 13, 1973, regarding juice content of Hawaiian Punch</td>
</tr>
<tr>
<td>American Dairy Association</td>
<td>Dkt. C-2459, September 25, 1973, regarding dietary claims for whole milk</td>
</tr>
<tr>
<td>Carnation Company</td>
<td>Dkt. C-2408, May 29, 1973, regarding protein claims for gelatin</td>
</tr>
<tr>
<td>Morton-Norwich Company</td>
<td>Dkt. C-2707, July 21, 1975, regarding sodium content of &quot;Morton Lite Salt&quot;</td>
</tr>
</tbody>
</table>

4. **Hearings Associated with Nutrition Education: An Overview**

As noted in previous sections, nutrition education hearings were held in 1972 and 1973 before the Senate Select Committee on Nutrition and Human Needs. Nutrition education
was also the topic during other hearings before the Select Committee during 1974 and 1976. During 1977, hearings were held on S. 720 and S. 1420 before the Senate Subcommittee on Nutrition wherein nutrition education was discussed at length.

The importance of hearings cannot be overemphasized. They may be conducted, as is the case with the 1972 and 1973 hearings, as part of the initial gathering of information that will lead to the formulation of a policy or legislation governing such policy. Or, they may be conducted in terms of 'invocation' (Lasswell, 1971), as is the case with the 1977 hearings wherein the purpose of the hearings is to ascertain the applicability of an intended policy or legislation. As such, hearings provide an arena in which legislators may be made aware of issues that support or oppose a cause.

There is little doubt that much of what happens in Congress occurs behind closed doors. It also appears that to a large extent legislators are well aware of the nature of the hearings prior to the testimony of witnesses and, in some cases, legislators come to hearings with preconceived ideas and predetermined positions. This is made evident in the opening statements made by some of them. Despite such facts, hearings are important in that they illuminate the nature of support or opposition, they indicate the influences legislators are or have been subjected to and they
provide a context in which one may speculate on future events.

Nature of the Hearings: A Summary

1) In terms of the need for nutrition education:

Witnesses generally provided legislators with background information as to the need for nutrition education and then made references to specific recommendations. In analyzing the nature of the hearings it is evident that advocates for nutrition education made references to the need for nutrition education in terms of:

a. The consequences, in terms of health, or malnutrition

b. The declining eating habits of the American people and

c. The fact that the food and advertising industries have contributed to the miseducation of the public.

In reference to the latter point, it is evident that by far the most emphasis was given to the adverse effects of advertising and the promotion of foods of low nutritive value. Further, while the point was made as to several foods that contribute to malnutrition, emphasis was made

\[21\] For elaborate highlights of the hearings refer to Appendix B.
as to the consumption of sugar-coated cereals and to the ad­verse effects of overconsumption of sugar in terms of health conditions.

Manufacturers of breakfast cereals, their advertising agencies and the networks they patronize gave indication as to their numerous efforts in nutrition education and the fact that they promote good eating habits. They noted that foods cannot be judged in terms of their sugar content, that there is no conclusive evidence that sugar is adverse to good health or that sugar consumption will be reduced if non-sugar-coated cereals were promoted. These witnesses' testimony was in direct answer to charges made by nutrition education advocates.

Witnesses from the Administration, while alluding to the need for nutrition education, gave testimony attesting to the existence nutrition education activities at the federal level.

Members of school food services supported the need for nutrition education and more funds by which to carry out such activities.

**In Terms of Recommendations**

The following recommendations were made during the hearings:

a. Teaching of nutrition in preschools, schools, universities and teacher training institutes.
b. Teaching of nutrition in medical schools.
c. The use of the media in teaching nutrition.
d. Nutrition education in terms of regulating and restricting the food and advertising industries (by Federal Trade Commission and Federal Communication Commission).
e. Elimination of some food advertising.
f. Educating the advertising industry.
g. Elimination of the sale of some foods.
h. Labeling of foods.
i. Research to reduce sucrose consumption.
j. Reevaluation of foods containing sugar.
k. Establish guidelines for desirable nutrition patterns.
l. Establish a Nutrition Education council to oversee the federal and state governments, industry, advertising and schools.
m. Congressional pressure on the Administration to improve nutrition education programs.
n. Provide for leadership in the Office of Education.
o. Provide for research in nutrition education.

In terms of the number of times a recommendation was made, it is noted that more witnesses recommended nutrition education programs in schools, universities, teacher training institutes and medical schools. However, in terms of
the emphasis placed on a recommendation in terms of the background information provided, it is noted that the regulation or restriction of advertising to children was the most emphasized recommendation.

Food industry, advertising and television network representatives did not allude to any recommendations; their presence at the hearings was purely defensive.

Members of the Administration who testified were not forthcoming with any recommendations with the exception of two: during the 1973 hearings a member of the Administration recommended more research in nutrition (as opposed to nutrition education) before expanding nutrition education programs. In 1977 the recommendation was made that funds for nutrition education be withheld pending further research as to the effectiveness of nutrition education programs.
CHAPTER FIVE

INTERPRETATION OF FINDINGS

This chapter entails an interpretation of the findings presented in chapter four. Such interpretation is made in two sections: Section one, relevant to the purpose of the study and to objective four, is an interpretation of findings in view of past events and is central to the proposition of possible reasons for legislative action or inaction with regard to nutrition education policies. Section two, relevant to objective three, is an analysis of the process of federal policy making through the use of the social and decision process models developed by Lasswell (1971).

Section One

The purpose of this study was to develop a frame of reference within which the federal role in nutrition education may be understood and to describe and analyze the context within which federal nutrition education policies are made.

An attempt to describe and analyze the context within which nutrition education policies are made necessitates a
brief explanation of the politics of hunger and food aid to the poor. The two issues, hereinafter referred to as (1) hunger and (2) nutrition education, are discussed as separate issues in this study in view of the current perspective from which nutrition education is considered. Such separation, however, although of relevance in the mid 1970's, is also somewhat artificial. Politically considered, nutrition education may be viewed not only as an extension of the hunger issue prevalent in the 1960's but also as having played a significant role in the debates that finally led to food aid reforms. Further, the findings reveal that although nutrition education is advocated as a separate cause, it is being promoted by some of the same personalities who had a decade earlier sought the alleviation of hunger, and that those who had originally opposed food aid reforms on the basis of contentions that the poor needed education, now oppose nutrition education on the basis of claims that people need food, not education.

The following is a brief description of the events surrounding the politics of hunger as these are related to the present set of events. Issues relevant to the politics of hunger came up during the course of the investigation. However, in that this study is limited in scope to include only nutrition education, these issues are not included in chapter four but, rather, are used in this chapter as a background against which a description and an understanding of
the present set of events are attempted.

Background: The Politics of Hunger

Hunger is referred to as a unique issue in contemporary American politics in that it has been 'discovered' in the late 1960's. George McGovern (1969) further elaborates by noting that hunger is unique as a public issue not only because it is newly recognized, but also because it exerts a special claim on the conscious of the American people.

To say that hunger was discovered is to evade some of the issues involved. The fact is, the issue of hunger in America was not so much discovered as uncovered and finally acknowledged by Congress and the American people. Such acknowledgement, often referred to in terms of a victory, would not have occurred without the hard work, dedication and persistance of food aid advocates such as Marian Wright, Robert Choate, Leslie Dunbar, Richard Boone and others. Nor would have reforms come about unless aided by the numerous field visits and research conducted by Robert Coles, Jean Mayer and other scientists who had testified to the existence of hunger in America and to its devastating consequences in terms of malnutrition, physical well-being and mental health.

Nick Kotz, a journalist who had placed himself in the center of events designed to convince congress and the American people of the plight of the poor, has chronicled
a deeply moving account of the politics surrounding the hunger issue. In *Let Them Eat Promises* (Kotz, 1969) he revealed not simply a gap between rhetoric and reality that is referred to, often simplistically, as a disturbing problem in American politics, but the inertia, bureaucracy, and rival priorities that inhibited the provision of basic food aid to the poor. In concluding, Kotz described the events as a "dismal story of human greed and callousness and immorality sanctioned and aided by the government of the United States."

Interviews conducted for the purposes of the study as well as subsequent reading of related documents reveal a relationship between past (i.e., related to hunger) and present (i.e., related to nutrition education) events on at least three levels: (1) The issue of food versus education; (2) purported lack of sufficient proof and agreement among experts; (3) the implication of the food industry.

**Food Versus Education**

The many debates that had ensued as soon as the hunger issue surfaced centered around the simple question: Are The American poor hungry? Robert Kennedy, Robert Coles and a host of other personalities who had visited and talked to the poor answered affirmatively. However, local officials, several politicians and opponents of food aid programs charged that if the poor were hungry it was because they did
not work and if they were malnourished it was because they were ignorant. The consensus was, more often than not, that what the poor needed was not so much money to buy food as opportunities to work, and not more food but education about food selection and the components of an adequate diet.

The task facing food aid advocates and those who had witnessed the realities of hunger was to convince Congress and the American people that hunger will not be alleviated by education. In retrospect, it seems a simple enough task. However, it must be remembered that food aid advocates were fighting traditions of misconceptions about poverty, its etiology and solution. Furthermore, the conception prevailed, as one congressman noted, that "there has been hunger since the time of Jesus Christ and there always will be."

Lack of Agreement

The problem was compounded by lack of agreement among experts. Hearings held before the Senate Subcommittee on Poverty and the Citizens' Board of Inquiry revealed an accumulation of evidence attesting to the existence of hunger and malnutrition in America. However, experts who were brought in to testify disagreed among themselves on whether lack of money or lack of knowledge was responsible. Such disagreements undoubtedly inhibited action and were also reflected in all levels of government: According to Kotz (1969), conservative factions argued for the need for
education whereas the more liberal politicians sought reforms in food aid programs.

Disagreements exhibited in these debates gave impetus to hearings central to this study: The question became, to what extent does lack of education account for severe malnutrition? By that time, a Senate Select Committee on Nutrition and Human Needs had been appropriated funds to investigate nutrition related issues. Subsequent to investigations, counterinvestigations, and testimonies given before the Select Committee, agreements were reached that shortages of both money and knowledge contributed to the problems of the hungry poor. Furthermore, poor people were not credited with any exclusive hold on nutritional ignorance. As one witness noted: "...we are a nation of nutritional illiterates...yet we expect the poor to exercise some special discipline of nutrition knowledge that the rest of the country lacks" (Kotz, 1969).

Involvement of the Food Industry

The third point common to both sets of events is central to the involvement of the industry. Richard Boone, of the Citizens' Board of Inquiry, noted the inadequacy of government food aid programs in solving the hunger problems in the United States. He wrote to seventy-five executives representing the American food industry asking whether they and the government should not be doing more to help the poor
gain an adequate diet. Of the seventy-five letters, Boone received thirty-five responses, an analysis of which revealed:

1. that major food manufacturers in America professed to know little about the food problems of the poor;
2. that they felt the solution to the needs of the hungry poor is mainly one of education and/or employment; and
3. that they believed the problem to be one of economics for which they had no special public responsibility, nor any particular expertise in solving.

Despite the contention of food manufacturers that they had neither the knowledge nor the obligation to deal with the hunger issue, scientists such as Robert Altschul felt that the food industry did indeed bear a responsibility to the poor because only it could apply available technical knowledge to feed the malnourished segments of society. Altschul further noted that American food manufacturers developed and supplied the United States Department of Agriculture with products of special nutrient content that were distributed to children throughout the world but not to children in America and at a cost of 2 cents per child per day.

Efforts on behalf of governments, industries and organizations to aid foreign countries while at the same time
overlooking the plight of their own needy people are not un­usual nor exclusive to the United States or the present
time. During the last century Charles Dickens acknowledged
the phenomenon as it existed in England aptly referring to
it as "telescopic philanthropy" (Bleak House, 1867). The
American food industry was made aware of its potential role
in alleviating the plight of the American poor but rather
than reacting to the challenge they argued that the poor
simply needed nutrition education. According to Robert
Choate such contention reflected an "escapist" view and was
unacceptable, at least in the late 1960's, and when referred
to in opposition to food aid.

The Present: The Politics of Nutrition Education

In reviewing the present state of affairs against the
background of the politics of hunger, it is made evident
that a reversal of positions had taken place during the
decade just past. With food aid reforms somewhat resolved
and food programs expanded, some of those who had been ac­
tive in events surrounding the alleviation of hunger have
since become advocates for nutrition education. This should
not be viewed as a phenomenon. Rather, it is a natural evo­
lution brought on by the increase in knowledge about food
habits of the American population and an awareness of the
consequences of malnutrition.
Food Versus Education

Although an understanding about nutrition and the extent of malnutrition in America is greatly increased, nutrition education is still conceived in relation to poverty and referred to in opposition of food aid programs. Opponents of nutrition education legislation claim that malnutrition is the result of hunger and will not be corrected by nutrition education. Such is the view of Senator Hart who, in his opening statement during the hearings on nutrition education, noted: "...no one could convince us three years ago—and no one will convince me today—that knowledge of the importance of food is an adequate substitute for food itself."22 Although the Senator is one of the few to admit, publicly at least, to such a view, he is not alone. As noted in the previous chapter under "legislation," the current interest in the Senate is overwhelmingly in favor of food aid legislation. In the same chapter under the section "programs," it may again be noted that most of the federal money allocated to nutrition education is related to programs directed at the poor.

The point was made in the last decade, in reference to food aid programs, that hunger and education are unrelated. The same point is currently made although it is also

22 Unless otherwise noted, all quotations are to be found in Appendix B.
contended that there exists a strong correlation between malnutrition and lack of nutrition knowledge. Whereas a decade ago advocates faced the task of convincing public officials that the poor do not necessarily need nutrition education, it is evident that the current task of advocates is similar and entails issues central to the fact that not only poor need nutrition education, but the entire population does. And not only lay people, but also teachers, health officials, and, in particular, prospective medical doctors.

Lack of Agreement

As noted in previous pages, the resolution of issues surrounding hunger was impeded because of lack of agreement as to the causes of malnutrition. It is evident that lack of agreement, although of a different nature, is also central to the politics of nutrition education. With the possible exception of representatives of the food and advertising industries, there is a general consensus among participants as to the deterioration of food habits among all segments of the American population and the consequences of such deleterious eating habits in terms of malnutrition, ill-health, and poor life and academic performance. However, there is no agreement as to:

(1) The causes of the deterioration of eating habits;

(2) the fact that education will result in changes in
food habits;

(3) the nature of an effective nutrition education endeavor; and

(4) the nature of research findings presented as evidence.

It is claimed, for example, by some of the more radical advocates such as Robert Choate that the food industry, with its multimillion advertising budget, is entirely responsible for the deleterious eating habits of American children. Others such as Dr. Jean Mayer claim that while the food industry is significantly responsible for changes in food habits, these are also the result of other societal factors such as the increase in the number of working mothers. Representatives of the food industry, on the other hand, claim no such responsibility and note, in effect, that they contribute to good eating habits of American children by encouraging them to eat breakfast. As Howard List, Vice President in charge of advertising, the Kellogg Company, noted: "...we are encouraging Americans to eat a good breakfast. When improvement of breakfast eating habits results from advertising, it can only be considered a benefit." According to a representative from General Foods, "a breakfast a child does not eat does him no good whatever." The point being made that despite the questionable nutritional value of some cereals, the fact that children eat these is in itself sufficient.
Nor have advocates of nutrition education been entirely convincing that nutrition education will indeed result in positive changes in food habits. To begin with, it is claimed, there are no substantial data to prove that. Essentially such has been the view of the various Administrations as early as the 1972 hearings and as currently as the latest hearings (July 1977) on S. 1420. During the latter hearings the Honorable Carol Tucker Foreman, representing the administration, vigorously fought the legislation that would have allotted $25 million for nutrition education on the basis of the contention that there is no proof that it would work. On the other hand, in advocating nutrition education programs, Jean Mayer, for example, noted: "...even with rigorous nutrition education programs we might be locking the barn after the horse has been stolen."

The point Mayer was making is related to the third disagreement listed above with regard to the nature of effective nutrition education programs. While on the one hand it is being advocated that nutrition education should be instituted in schools, colleges and medical institutions, it is also being contended, and often by the same witnesses, that that in itself would be insufficient thus there is a need for the use of the media as in public interest messages. Further, while nutrition education is being advocated in terms of programs and public advertising, it is also being advocated not in terms of education at all, but in terms of,
or in conjunction with, (1) the elimination of selected food advertisement, or the regulation of such, and (2) the elimination of some foods, or the prohibition of the sale of such items as soft drinks, heavily sugared cereals and candy. The point is made that "you can't legislate what people will eat, but you could eliminate the choices."

Such disagreements among advocates for nutrition education may be interpreted not so much as differences in terms of the need for nutrition education, but in terms of the extent of a beginning of nutrition education efforts. Nutrition education may well begin as school-based programs which will be later corroborated with public interest messages and then with the regulation of advertising or restriction of the sale of some foods. There is an agreement on the part of advocates as to the inclusion of all three/four phases. However, in their vehemence to stress a point or accomplish a goal, they may have indeed hurt their cause for they allowed those public officials who were not quite interested in nutrition education the means by which to disclaim a need.

Another point to be made in reference to nutrition education will be made more evident in subsequent pages and is central to the purported lack of data, or the inconclusive nature of the findings relevant to the deleterious effects of such foods as sugar-coated cereals. The food manufacturers contend not only that there is no increase in the
amount of sugar consumption, but that it is not proven that sugar is indeed harmful or that its consumption will be lessened given the promotion of non-sugar-coated cereals. At the same time that manufacturers are presenting such arguments with the support of scientific documents, other scientists claim the existence of factual information as to the increase in sugar consumption and knowledge of the harmful effects of sugar. As Senator Percy at one point noted: "...the hearings...have shown the great difficulty in getting data that reasonable men can agree on in the field of food and nutrition."

Involvement of the Industry

Analogous to past events, the food industry is implicated in the politics of nutrition education. So are the three major television networks, the individual broadcasters and advertising agencies representing the food industry all of whom are held responsible for miseducating the American population and inciting American children to adopt deleterious eating habits.

The issue central to the present allegations made against the industry is advertising. During past events Ralph Nader pointed out to congress that the food industry spent only $12 million on basic food research while in the same year it spent $13 billion on advertising. He further pointed out that supermarket shelves were filled with
"glamorous packaging, processing and advertising" rather than with nutritious foods (See Kotz, 1969). Despite his allegations, however, advertising did not become a major issue until the present state of events with the contention being made that the need for nutrition education has risen almost entirely because of adverse advertising practices.

Food industry representatives appear just as reluctant to be involved in the politics of nutrition education as they did during the previous round—at one point they refused to testify before the Senate on charges that the hearings were "rigged" and/or that they conflicted with a complaint issued against them by the Federal Trade Commission. However, they are notably more ready to answer charges and more positive in the nature of their defense. While they have not changed their advertising format or budget, and while they do continue to promote sugar-coated cereals to children, they have spent a minimal amount of money on nutrition education in the form of advertising such phrases as "eat a good breakfast and a variety of food" and they do disseminate nutrition booklets to schools. Despite such efforts they continue advertising in such a way as to disclaim the importance of nutrition. Such point was made by Senator McGovern who quoted from a General Mills booklet emphasizing the use of sugar 'sparingly' and then indicated to a General Mills television advertisement: "Mirror, mirror
on the wall whose cereal is the supersweetest of them all? Is it my Count Chocula, my supersweet cereal?" Alluding to the conflict between the two items, Senator McGovern noted: "...the advertising on television encourages the children to eat the supersweet cereal of them all. How does that square with the booklet?" In answer, a General Mills representative said: "...it squares with getting children to eat a good breakfast." The point was made that children are better off eating a sweet cereal than no cereal at all and that unless they were encouraged to eat a sweet cereal they would not eat breakfast.

The reactions of the television networks representatives are similar to the reaction exhibited by the food industry a decade earlier. They have made no comment on the need for nutrition education but noted that they are self regulating and they do abide by codes of ethics established and regulated from within. They have made efforts to determine charges that food advertising is miseducative and exploitive in nature (i.e. the Winick study they sponsored) and while they do admit that the broadcaster is ultimately responsible for what gets shown on television, they do believe that the advertiser has "the right to sell his product" and absolve themselves of any responsibility: "...we are not manufacturers and we do not make the product."
A Cause, A Case and A Campaign

While there are some disagreements among nutrition education advocates and a number of inconsistencies evident in their testimonies, the nature of the hearings held on nutrition education appears to be so narrow in content as to be planned. Various interviews conducted by the author revealed that committee hearings, while ostensibly open to the public and posted enough in advance so that those who may wish to testify can do so, are indeed carefully planned and a selected number of witnesses invited to testify. This was made very notable in reference to forthcoming hearings on nutrition education to be held by a House Subcommittee. There was also reluctance on the part of the staff to reveal the names of the witnesses scheduled to appear.

Given that hearings are prepared by the staff, it became of interest to trace the philosophy of Kenneth Schlossberg, for several years the staff director of the Senate Select Committee on Nutrition and Human Needs under whose auspices the hearings on nutrition education were held. That Schlossberg is an advocate of nutrition education is evident in the few remarks he made during the hearings and in the nature of his questioning. It is further evident that he is very conscious of the actual and potential role of the food and advertising industries in nutrition education.
Investigations revealed that according to Schlossberg there is an efficient way by which to "get Congress to act on [a] particular concern." Such efficiency is reflected in what he terms the three C's: A good Cause, a good Case to promote the cause, and a Campaign to put the case across the Congressional goal line.\(^{23}\) According to Schlossberg, congress is besieged by good causes scrambling for recognition and attention which is the reason for the need for a good case with which to argue for action. However, given that Congress is an institute of "men and rules," both of which count heavily in what happens, there is a definite need for a campaign.

Given the above views and the nature of the hearings as presented in chapter four, it is evident that the case for the cause Nutrition Education is presented in terms of the argument that:

1. Eating habits have undergone a tremendous change for the worse: Since World War II the nation's consumption of staple foods has decreased steadily while the consumption of snack foods has been steadily skyrocketing.

2. The results of these changes in eating habits are reflected in such health conditions as obesity,

dental decay, diabetes, heart disease, hypertension and a host of other conditions which contribute to an increase in the nation's spending on health over the past twenty years from $12 to $70 billion.

3. An investment of several hundred million dollars on educating children to eat well would ultimately save the government billions of dollars in health costs.

This is, of course, a simplification of the case for nutrition education. Those responsible are to be commended for providing congress with substantial evidence that indicates the urgent need for nutrition education. However, it is in the nature of the campaign that they may have failed.

It is appreciated that American people have eating habits that potentially promote ill-health and fatalities and that these habits begin in childhood with the overconsumption of low nutritive snacks, soft drinks and "fast foods." While these have been mentioned during testimonies, the findings evidence an overwhelming attack on one part of the food-industry, the cereal manufacturers and, via a concentration on breakfast cereals, an attack on the advertising agencies representing them, the networks that they patronize and, even more incidently, the sugar industry.

As Senator McGovern noted at one point during the hearings, cereal manufacturers such as Kellogg and General Mills have for many years stood for a genuine concern for improved
nutrition in America. While it may be that they are profit-oriented and unconcerned about the nutrition of the American people, the fact remains that singling them out as adversaries of good nutrition and as miseducators of the children is likely to cause a reaction against the case. Furthermore, good cereals, as Jean Mayer noted, are "an extremely useful food" especially when consumed with a small amount of sugar and milk, thus their use as a vehicle by which to accomplish the goal of nutrition education is of questionable value. After all, soft drinks are almost nearly entirely sugar in content, are advertised heavily and have replaced milk as the second most consumed beverage in America. An attack on the soft drink industry alone or in conjunction with an attack on cereal manufacturers perhaps would have produced more support in congress. As Senator Percy noted: "We must not overlook the fact that literally hundreds of foods...are advertised on television. We must avoid singling out one segment of the food industry for praise or blame when other segments may be engaged in the same practices."

The overconsumption of sugar is being pointed out as a factor against breakfast cereal. This, too, has proven to be problematic. While there is substantial evidence indicating to the adverse effects of sugar, the evidence, as presented, is inconclusive and controversial in nature. Representatives of the sugar industry were not implicated
in any of the hearings nor have they forwarded any testimony. However, cereal manufacturers were quick to point out that studies exist that conflict with the evidence against sugar. Further, those who were brought to testify against the overconsumption of sugar related sugar to dental decay, a factor which instigated the reaction in the Senate "wouldn't it be simpler to teach children to brush their teeth?"

Section Two: Analysis of the Contextuality of Nutrition Education Policies

The above section serves as an introduction to the contextuality of nutrition education policies in that attempts are made therein to clarify past and present events, their interrelationships and their relation to the future. In this section further analysis and interpretation of context will be made through the application of structure exemplified by Lasswell's (1971) social and decision process models.

The Social Process Context

Taking the years between 1972 and the present as one phase in nutrition education policies, a contextual map of the social process was drawn (table seven). The map closely adheres to Lasswell's interpretation of the social context wherein policies are made and implemented (see chapter one of this report). It identifies participants in the policy scene, their perspectives, base values and strategies as
well as the relation these may have upon outcomes and subsequent effect. The map (model) clearly delineates the factors inherent in the social context and is herein used to explain interactions among participants in a given situation as well as the outcomes and effects of such interactions.

Much of the interaction among key participants and the strategies they employ are interpretively explained in the previous section of this chapter. In reference to table seven, other possible explanations become apparent:

**Participants:** Participating in the nutrition education policy process are individuals and groups. It is of interest to note that while those advocating nutrition education are individuals, those in opposition are representatives of groups. In view of the fact that individuals are notably less effective in their approach to congress and are less able to effect changes (Bailey, 1965, 1970; Rose, 1967), such factor is indeed important and serves to explain, albeit partially, the weakness inherent in the advocacy approach to nutrition education. Furthermore, in that there are several large groups relevant to nutrition (e.g. the American Dietetics Association, The Nutrition Education Society, among others), their absence, although unexplained, is of interest and may bear further study relevant to the field of nutrition itself.
The individuals advocating nutrition education include nutritionists, dentists, physicians, and, to a lesser extent, consumer advocates, school food service personnel and (higher) educators. Legislators who advocate nutrition education are also listed as individuals in view of the fact that they are notably few in numbers and have shown to collaborate only inasmuch as one or two legislators would occasionally sponsor a bill introduced by a colleague. These individuals' base values\textsuperscript{24} include, to a large extent, well-being and, to lesser extents, affection (consumer advocates are listed as such in view of the fact that they represent families), skill and power.

Given the strong representation of well-being, it is not surprising that expectations are summed up in terms of the belief that:

1. Eating habits have undergone changes for the worse,
2. the result of these changes is reflected in worsening health conditions and higher health costs, and
3. these health costs may be substantially reduced through an investment in nutrition education.

These expectations are notable among all participants advocating nutrition education. The fact that well-being is largely representative of the advocacy group explains such

\textsuperscript{24} For explanation refer to page 139.
expectations. It is to be noted, however, that a large body of data exists which attests to the consequences of malnutrition in terms of psychological development and learning disabilities (see chapter three of this report). That no mention of such data was made is regrettable. Reference to the economic benefits of nutrition education in terms of reducing the numbers of retarded and learning disabled children not only would have strengthened the rationale underlying the demand for nutrition education, but may have elicited more active participation among educators.

Opposing nutrition education are representatives of groups who may be defined, in terms of their base values, as wealth, enlightenment and power. In that advertising agencies and television networks operate for profit and are part of established industries, they may be defined as wealth-enlightenment. Given such definition, it is imperative to note that wealth and power far outweigh all other base values. Such notation gains in significance when considered in relation to the fact that the zone of interaction relevant to the context in question is within the political arena. Theories of political power in American society attest to the influence of the economically privileged and industry upon federal officials either totally (Mills, 1956; Ludberg, 1937) or at least partially (Mills, 1967). In view of such theories the hypothesis is forwarded that those wealth groups opposing nutrition education were able to
restrict outcomes despite the fact that their overt strategies were limited to persuasive techniques during part of the promotion phase of the decision process and because of their wealth and implied power.

In reference to outcomes and effects, 'unofficial' individuals advocating nutrition education sought well-being through skill and enlightenment. 'Official' individuals (i.e. representing powers), sought well-being through skill only. The potential effect of well-being through skill and enlightenment would have been not only nutrition education in schools and universities. It would have meant substantial control over the activities of the food, advertising and communications industries. Such control would have been accompanied by financial repercussion that, it is speculated, industry representatives wished to avoid. Since Lasswell's model allows for vertical as well as horizontal interactions, it is of interest to bring out the possibility that the influence of representatives of the industries in question extended to those officials who were actually advocating nutrition education but who exercised their power only inasmuch as to prescribe nutrition education in schools and universities. Such possibility can only remain speculative in that findings of this study are limited to the surface structure of the contextuality of nutrition education policies.
Table 7
A Contextual Map of the Social Process in Nutrition Education

<table>
<thead>
<tr>
<th>PARTICIPANTS</th>
<th>PERSPECTIVES</th>
<th>SITUATIONS (ZONE OF INTERACTION)</th>
<th>BASE-VALUES</th>
<th>STRATEGIES</th>
<th>OUTCOMES (decision phases)</th>
<th>EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individuals</strong></td>
<td><strong>IDENTITY</strong></td>
<td><strong>EXPECTATIONS</strong></td>
<td><strong>VALUE DEMANDS</strong></td>
<td><strong>BASE-VALUES</strong></td>
<td><strong>STRATEGIES</strong></td>
<td><strong>OUTCOMES</strong></td>
</tr>
<tr>
<td>Nutritionists</td>
<td>Need for nutrition education in terms of &quot;a-c&quot; (see page 109).</td>
<td>Nutrition education in terms of &quot;a-p&quot; (see pages 110, 111).</td>
<td>Low Crisis</td>
<td>Prolonged</td>
<td>Power</td>
<td>Diplomacy</td>
</tr>
<tr>
<td>Dentists</td>
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<tr>
<td>Physicians</td>
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<td></td>
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<tr>
<td>Consumer advocates</td>
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<tr>
<td><strong>Value-sharers (unofficial)</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Value-sharers (official)</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Legislators</td>
<td>Need for nutrition education in terms of &quot;a-c&quot; (p. 109).</td>
<td>Nutrition education in terms of &quot;a&quot; (p. 110).</td>
<td>Power</td>
<td>Diplomacy</td>
<td>well-being through skill &amp; enlightenment. (intelligence &amp; promotion)</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>(i.e. extension of past events)</td>
<td>Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Groups:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Value sharers (unofficial)</strong></td>
<td>Food industry</td>
<td>Advertising</td>
<td>Doing its part not to be involved</td>
<td>None made</td>
<td>Exclusive</td>
<td>wealth enlightenment</td>
</tr>
<tr>
<td></td>
<td>Advertising networks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>wealth enlightenment</td>
</tr>
<tr>
<td><strong>Value sharers (official)</strong></td>
<td>Administration</td>
<td>Administration</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Value sharers (inferred)</strong></td>
<td>Members of Congress</td>
<td>No nutrition education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(inferred)</td>
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</table>

1 For definition of terms, see following page.
### Interpretation of Lasswell's Terms

<table>
<thead>
<tr>
<th>Value</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>Government, law, political parties</td>
</tr>
<tr>
<td>Enlightenment</td>
<td>Languages, mass media</td>
</tr>
<tr>
<td>Wealth</td>
<td>Farms, factories, banks</td>
</tr>
<tr>
<td>Well-being</td>
<td>Hospitals, recreational facilities</td>
</tr>
<tr>
<td>Skill</td>
<td>Vocational, professional schools</td>
</tr>
<tr>
<td>Affection</td>
<td>Families, friendship circles</td>
</tr>
<tr>
<td>Respect</td>
<td>Social classes and castes</td>
</tr>
<tr>
<td>Rectitude</td>
<td>Ethical and religious associations</td>
</tr>
</tbody>
</table>

### Value/Outcome

<table>
<thead>
<tr>
<th>Value</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>Victory, defeat in fights or elections</td>
</tr>
<tr>
<td>Enlightenment</td>
<td>Scientific discovery, news</td>
</tr>
<tr>
<td>Wealth</td>
<td>Income, transfer of ownership</td>
</tr>
<tr>
<td>Well-being</td>
<td>Medical care, protection</td>
</tr>
<tr>
<td>Skill</td>
<td>Instruction, demonstration</td>
</tr>
<tr>
<td>Affection</td>
<td>Expression of intimacy, friendship</td>
</tr>
<tr>
<td>Respect</td>
<td>Honor, discriminatory exclusion</td>
</tr>
<tr>
<td>Rectitude</td>
<td>Acceptance in ethical associations or religions</td>
</tr>
</tbody>
</table>
The Decision Process Context

Using the reality exemplified in chapter four against Lasswell's decision process model, it is evident that the decision process in nutrition education is incomplete and that phases accomplished thus far are about to be repeated. Further, several flaws in the decision process at the federal level are pointed out which indicate to the haphazard way by which some social policies are decided upon and/or implemented.

Intelligence

As was made evident in section one of this chapter, the intelligence phase central to nutrition education began in the late 1960's and was reflected in the massive amount of information that accumulated at the various conferences on health and nutrition. The intelligence phase culminated in hearings on nutrition education that were held in 1972 and 1973. These hearings were, in essence, intelligence phase efforts that reflected an initiation of action relevant to a national nutrition education policy. However, the hearings also reflected the promotion phase of the process in that agitational intensity was prevalent throughout.

Promotion

Agitational intensity in the decision process is usually reflected in differing points of view and disagreements about outcomes as exemplified by groups of opposing
interests. In the reality of nutrition education hearings however, the agitational intensity and disagreements are due to the course of advocacy for nutrition education and are related to two points made clear in the previous section: (1) Disagreements with regard to nutrition education outcomes were prevalent among the advocates for nutrition education themselves rather than among opposing interest groups. (2) The situation was made further controversial due to the implication of one sector of the food industry whose representatives, by virtue of the allegations made against them, provided opposing views as to the state of affairs and the need for change through legislation. If action was impeded during the promotion phase, then this was largely and incidently brought on by advocates for nutrition education.

Prescription

It is evident from the findings that, despite the hearings held and testimony provided, members of the Senate Select Committee, if they had any outcome in mind, it was an outcome relevant to instituting nutrition education programs in schools and universities. Several prescriptions relevant to nutrition education in schools and universities were forwarded between 1973-1977. In 1977, a prescription in terms of S. 1420 passed the Senate and finally reached the phase of invocation.
Invocation

As noted above, the invocation phase is similar to promotion thus some agitational intensity is expected at this phase. This was indeed reflected in the case of S. 1420 with the opponents of nutrition education being the members of the Administration who vehemently argued that the bill be dropped.

At that point, it would have been expected that the decision process would have been stymied at the invocation phase or that some negotiations would have been made relevant to the prescription and/or application. That neither occurred is partly due to the political system in America. Democracy in the United States is reflected in a government that is based upon a system of checks and balances. Given this system, the House of Representatives has a natural impact upon any congressional decision. S. 1420 won the approval of the Senate but not of congress. However, the strong support for S. 1420 among Senate leaders is reflected in the fact that a House Subcommittee scheduled hearings on nutrition education. Such development may be interpreted as progress. However, it also lends itself to a repetition of events: While the invocation phase was finally reached after five years, it appears that the decision process in nutrition education is back to the first phase, that of intelligence, only this time events will be conducted under the auspices of the House of Representatives.
Using the recommendations elicited during the first two phases of the process, a contextual map was drawn so as to view events on a continuum (table 8). Of the sixteen recommendations made, it is evident that four have made an impact on Senate members in terms of potential prescriptions. This is especially notable in the first recommendation for nutrition education programs in schools and colleges: Five relevant bills (prescription outcomes) were introduced between 1973 and 1977 one of which passed onto the invocation phase.

It is also evident, given the findings, that passing a law is one thing but persuading the Administration to carry out its implementation is quite another. One bill, S. 1005, became Public Law 93-150. The law was peripherally related to nutrition education in that it approved $1 million for nutrition education pilot programs as part of the School Lunch programs. However, the funds were not sought by any Administration (see Appendix B). The law further indicated that the sale of some foods be prohibited in schools during the lunch break, a factor of relevance to recommendation number seven. No enforcements procedures were included and, as became evident in the course of the findings, this part of the law was never applied.

While only four recommendations can be attached to prescriptions, other recommendations have made an impact in terms of unofficial policies and/or appropriations of funds that bypassed the prescription and invocation phases. For
example, many federal programs currently "write in" funds for nutrition education although it was not possible to ascertain the extent of many such efforts. With regard to recommendations number three and eight, it is evident that the Federal Drug Administration has bypassed congressional pressures to act; with regard to recommendation number four, the Federal Trade Commission is enforcing some changes; also, while there is no prescription attached to recommendation number twelve relevant to appointing a Nutrition Education Council, a new office of Health Information and Promotion has been established within the Department of Health Education and Welfare within which specific goals for nutrition education are prescribed. It cannot be said that the new office is analogous to the Council recommended, however, it may be noted that such office reflects an interpretation of the need to coordinate nutrition education activities. With regard to the last recommendation for public awareness campaigns, there is no prescription although there is an application outcome.

These noted "leaps" in the decision process (exemplified by broken lines in table 8) are not uncommon and they do attest to a ripple effect in the policy arena. These leaps should not be interpreted as positive outcomes, however. Rather, they reflect impulsive actions on the part of the Administrations to act on their own accord and without congressional directives. Such outcomes are not products
of careful thought as to the needs of the nation and the means by which to meet them, but are accumulations of minor efforts that are uncoordinated, duplicated, costly and which do not lend themselves to evaluation. Further, these imply that efforts do exist and that action is not warranted. In the case of the contextuality of nutrition education policies, the fact that the various agencies within the Administrations conduct such minor, albeit costly, programs in nutrition education may have impeded the allotment of funds for coordinated thoughtout efforts.
Table 8
A Contextual Map of the Decision Process in Nutrition Education

| Intelligence/ 
<table>
<thead>
<tr>
<th>Prescription</th>
<th>Invocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion Outcomes</td>
<td>Outcomes</td>
</tr>
<tr>
<td>Nutrition Education in Schools</td>
<td>S.1005</td>
</tr>
<tr>
<td></td>
<td>S.3864</td>
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<tr>
<td></td>
<td>S.1420</td>
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<tr>
<td>Nutrition Education in Medical Schools</td>
<td>S.324</td>
</tr>
<tr>
<td>Use of Media</td>
<td>NIH Activities (see p. 103)</td>
</tr>
<tr>
<td>Regulating/restricting food &amp; advertising industries</td>
<td>Food and nutrition Adv. Programs (pp. 106-107)</td>
</tr>
<tr>
<td>Elimination of some food advertising</td>
<td></td>
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<tr>
<td>Educating advertising agencies</td>
<td></td>
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<tr>
<td>Prohibiting sale of some foods</td>
<td></td>
</tr>
<tr>
<td>Food labeling</td>
<td>S.3687</td>
</tr>
<tr>
<td>Research to reduce sucrose consumption</td>
<td></td>
</tr>
<tr>
<td>Reevaluation of foods containing sugar</td>
<td></td>
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<tr>
<td>Guidelines for desired nutrition patterns</td>
<td></td>
</tr>
<tr>
<td>Nutrition Education Council</td>
<td>Office of Health Info. &amp; Promotion (p. 108)</td>
</tr>
<tr>
<td>Congressional pressure on Administration to improve programs</td>
<td>e.g. food stamps include nut. info.</td>
</tr>
<tr>
<td>Leadership in O.E.</td>
<td></td>
</tr>
<tr>
<td>Research in nutrition Education</td>
<td>Funds for research (p. 103, 104)</td>
</tr>
<tr>
<td>Public Awareness campaigns</td>
<td></td>
</tr>
</tbody>
</table>

--- denote a leap in the phase
\[\rightarrow\] denote direct relationship between phases

1. Recommendations for nutrition education made during these phases.
2. See also PL 93-150.
3. As noted on page 105, FDA initiated labeling activities. However, these were traced to 1969 actions and are thus not related to present actions. For further description of bill refer to page 78.
4. Established by provisions made in PL94-3 that was instigated for different purposes. However, since nutrition education was mandated, it denotes a leap in the decision process although from the point of view of congress rather than the administration.
CHAPTER SIX

SUMMARY AND CONCLUSIONS

Summary

This study was conducted in order to develop a frame of reference in which the federal role in nutrition education may be understood and to describe and analyze the context within which federal nutrition education policies are made.

Findings elicited in this study reveal that:

1. In terms of policy actors participating in nutrition education it has become evident that: (a) only a few Senators have been interested in and appreciative of the need for nutrition education; (b) there are no organized groups advocating for nutrition education but, rather, a selected number of nutritionists, dentists, physicians and consumer advocates have maintained contact with policy makers; (c) pressure from groups of opposing interests was not apparent although the food and advertising industries have been implicated and thus put in the position to disclaim their role in nutrition education activities and to discredit the importance and need for nutrition education.
2. In terms of the role of Congress in nutrition education, the major portion of relevant activities have thus far been relegated to the Senate, although the House of Representatives is currently initiating its own investigations. The findings also reveal that within the Senate, three standing committees and one special committee have been involved in any nutrition education deliberations. Further, despite the fact that nutrition education has been a topic of specific discussion at the federal level since 1972, support and interest in the issue among Senate members has not been evident until the summer of 1977 when, for the first time and subsequent to many attempts, a bill whose thrust is nutrition education won Senate approval.

3. In terms of the role of the Administration, two factors have become evident. One, there is an apparent defensive attitude among members of the various Administrations in power between 1972-1977 toward a comprehensive nutrition education policy. This is especially apparent in members of the present Administration. On the other hand, the various agencies within the Administration have taken the lead in responding to recommendations made during deliberations and, in their anticipation of congressional pressure, have initiated a number of activities related to nutrition education and/or incorporated nutrition education to existing programs. While substantial amounts of money are said to be allocated to nutrition education at the
federal level, it is difficult to evaluate the efforts or ascertain their nature. It appears that, in general, the efforts are directed at low income families, that they are duplicated and uncoordinated. Further, in that they may be indicative of extensive federal efforts in nutrition education, they serve to inhibit the formulation of a comprehensive policy that would reflect a thoughtful response to the needs of the nation in terms of nutrition education.

In interpreting the findings and developing a contextual base for nutrition education policies, it is made evident that although nutrition education has been promoted as a separate cause, it is an extension of the hunger issue prevalent in the late 1960's and, politically considered, it is related to past events in at least three levels: (1) the issue of food versus education; (2) purported lack of sufficient proof and agreement; and (3) the implication of the food industry. These three issues are noted to have impeded past events and to have potentially stymied present actions toward the formulation of nutrition education policies.

Further interpretation of the findings on a more abstract level and through the use of theoretical formulations developed by Lasswell (1971) reveal several factors inherent in the contextuality of nutrition education policies: (1) There is an apparent imbalance among participants in the policy process; those who are advocating nutrition education
are noted to be individuals while those opposing the issue are representatives of groups. Further, there is an over representation of wealth (industries) whose relationships with power (government) bear further study given that findings in this study are limited to surface structure of the contextuality of nutrition education policies. (2) The decision process in nutrition education is incomplete and about to be repeated. Also, there are several flaws in the decision process which may be indicative of the haphazard way some social policies are decided upon and/or merely implemented at the federal level.

Conclusions

In view of the findings reported herein and the hypotheses brought forward upon analysis and interpretation of the data, it appears that further study is warranted in order to refine our understanding of: (1) the relationship between industry and government in the issue of nutrition education and (2) the Legislative and executive roles in the decision making process of social policies. Other recommendations that are based upon reflection, rather than the findings, are presented below.

This study was undertaken in view of the apparent notion, exemplified in the literature, that the federal government not only holds the key (in terms of funds) but indeed the responsibility of formulating and implementing a
national nutrition education policy. Those scholars and
scientists who adhere to such notion are, in the majority,
nutritionists who possess the knowledge of the importance of
nutrition in terms of human development and the proof that
in the midst of abundance, malnutrition in America is evi­
dent. The rationale underlying their claim to the govern­
ment is that malnutrition, and thus the need for nutrition
education, are national problems that can best be solved on
a national scale.

Nutritionists are not alone in their expectations of
federal action. Scholars in other disciplines such as edu­
cation (Ziegler, 1975; Iannaccone, 1977) and psychology
(Caldwell and Riccuiti, 1973) have noted the need for a
reciprocal relationship with federal officials so that the
latter may be made aware of the needs of the nation as in­
terpreted by the particular discipline. These expectations
are evident not only in terms of funds for research, but
also in terms of deciding research and social services pri­
orities. Further, such expectations extend to the resolu­
tion of such issues as child abuse, mainstreaming and de­
segregation. It appears that as professionals we are react­
ing to needs made evident through research and practice by
relegating decision making to federal officials, or we
simply wait until such time as needs become sufficiently
pressing (or coincide with congressional interest) to war­
rant federal directives and/or funds that in turn elicit
action on our behalf.

Such dependence upon the federal government is unhealthy and hardly productive. We have reached the point when we no longer rely upon our judgement to act, but rather, we depend on congressional and judicial support to act. We do not seem to be able to formulate and implement policies from within and across disciplines, although we are often able to offer succinct suggestions to government officials about what such policies would constitute. It is not as if federal decisions have proven to be effective. On the contrary, an anatomy of numerous social policies would reveal that policies, when formulated at the federal level and implemented at the various lower sectors of government, exemplify discrepancies between the initial goals of the policies and their subsequent outcomes (Lineberry, 1971). Often such discrepancies, as may be reflected in public housing, for example, occur at the cost of further ills and a new set of social problems to those for whose benefit the policies were intended. Or, as is the case with food stamps, discrepancies occur that point to the recurrent need for changes and modification of the policies.

Advocates for nutrition education have spent many years in trying to convince congressional leaders of the importance of their cause and the need for its implementation. Despite such efforts, they have not reflected on the fact that a nutrition education policy, once formulated, may fail
in its implementation. If advocates succeed in generating sufficient enthusiasm in congress to warrant the passage of nutrition education policies, it will remain to be seen whether such enthusiasm will be reflected in the actions of the Administration that will be responsible with the invocation of such policies and the various levels of government responsible for their implementation.

Some social problems such as hunger and poverty require federal solution given, in the very least, the expense involved. While accepting the fact that malnutrition and the need for nutrition education are problems of national scale, I contend that they lend themselves to other solutions. The amount of money needed to be spent on nutrition education by universities and state educational agencies does not necessitate federal support but, rather, a shifting of priorities. Educational leaders need to be convinced of the importance of nutrition and the relationship between malnutrition and nutrition education and current problems they face in terms of learning disabled children. Just as advocates for nutrition education have worked so hard to convince federal officials of the cost benefit of nutrition education in terms of preventive medicine, so they need to rechannel their energies and convince educational leaders of the long-range cost benefits of nutrition education in terms of preventing academic failure.
I believe nutrition education will elicit changes in eating habits although I am aware of the fact that, to date, there exists no evidence to support such belief. Confusion abounds as result of advertising claims and food faddism, but the interest to improve the quality of life and the environment exists. I propose, therefore, that efforts be undertaken to conceive of and implement nutrition education programs that lend themselves to evaluation prior to federal directives to provide funds for nutrition education. Such proposal would not only provide an impetus for federal funds, but may prevent misdirections through implementation.
APPENDIX A

AN ANALYSIS OF CURRENT FEDERAL EXPENDITURES
IN NUTRITION EDUCATION
FEDERAL NUTRITION EDUCATION EXPENDITURES FOR FISCAL YEARS 1974, 1975, and 1976

<table>
<thead>
<tr>
<th>Program</th>
<th>1974</th>
<th>1975</th>
<th>1976</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Department of Agriculture</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extension Service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expanded Food and Nutrition Program</td>
<td>$50,252,000</td>
<td>$50,560,000</td>
<td>$50,560,000</td>
</tr>
<tr>
<td>Extension Food and Nutrition Program</td>
<td>8,879,000</td>
<td>10,087,000</td>
<td>9,942,000</td>
</tr>
<tr>
<td><strong>Agricultural Research Service</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food and Nutrition Research Program</td>
<td>335,056/</td>
<td>333,084/</td>
<td>342,100/ (est.)</td>
</tr>
<tr>
<td><strong>Food and Nutrition Service</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Stamp Program</td>
<td>2/</td>
<td>2/</td>
<td>2/</td>
</tr>
<tr>
<td>Child Nutrition Division</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition Training and Education Surveys</td>
<td>447,532</td>
<td>679,119</td>
<td>197,649</td>
</tr>
<tr>
<td>Special Supplemental Food Program for Women, Infants, and Children</td>
<td>1,000,000/ (est.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food and Nutrition Information Center</td>
<td>170,000</td>
<td>203,500</td>
<td>275,238</td>
</tr>
<tr>
<td><strong>Cooperative State Research Service</strong></td>
<td>1,175,375</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Department of Health, Education, and Welfare</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration on Aging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition Program for the Elderly</td>
<td>4/</td>
<td>4/</td>
<td>4/</td>
</tr>
<tr>
<td>Office of Child Development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head Start Program</td>
<td>5/</td>
<td>5/</td>
<td>5/</td>
</tr>
<tr>
<td>Office of Consumer Affairs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food, Nutrition, and Health Campaign</td>
<td>103,500/</td>
<td></td>
<td>160,000/</td>
</tr>
<tr>
<td><strong>Health Services Administration</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bureau of Community Health Services</td>
<td>8/</td>
<td>8/</td>
<td>3,700,000</td>
</tr>
<tr>
<td>Indian Health Service</td>
<td>8/</td>
<td>8/</td>
<td>8/</td>
</tr>
<tr>
<td>Bureau of Quality Assurance</td>
<td>8/</td>
<td>8/</td>
<td>230,000</td>
</tr>
<tr>
<td>Bureau of Medical Services, Department of Hospitals and Clinics, U.S. Public Health Service Hospital</td>
<td>8/</td>
<td>8/</td>
<td>8/</td>
</tr>
</tbody>
</table>

(footnotes at end of chart)
Office of Education

Consumer and Homemaking Education, Part F

Follow Through

Library Services and Construction Act

Part B, Basic Grants, State Vocational Education Programs—Occupational Home Economics Education

Consumers' Education

Adult Education Program

School Health and Nutrition Services for Children from Low-Income Families

Centers and Services for Deaf-Blind Children

Severely Handicapped Children and Youth

Handicapped Children's Early Education Program

Migrant Program

National Institutes of Health

National Heart and Lung Institute

National Cancer Institute

National Institute of Arthritis, Metabolism and Digestive Diseases

Health Resources Administration

FOOTNOTES

1/ Money obligated for food and nutrition programs, which may not be exclusively nutrition education.

2/ Nutrition education component of administrative funds used to produce and disseminate limited nutrition education materials is not available.

3/ Funds were authorized for nutrition education for the first time in 1976.

4/ Nutrition education component figure not available. Total Federal program allocations obligated in FY 76 were $131,000,750.

5/ Nutrition education component figure not available. Total Federal program obligations in FY 76 were $432,598,000.

6/ Federal money provided by the Public Health Service, Office of Consumer Affairs, Office of Human Development, Office of Education in DHEW; and USDA. $2,500 was provided by the Grocery Manufacturers of America.

7/ Federal money provided by the Office of Consumer Affairs; $50,000 was also provided by the Grocery Manufacturers of America.

8/ Nutrition education component figure not available.

The above figures were compiled, analyzed and distributed by the Library of Congress Legislative Research Service.
APPENDIX B

HEARINGS HELD BEFORE THE SENATE SELECT COMMITTEE ON NUTRITION AND HUMAN NEEDS

Highlights of the Hearings
Members of Senate Select Committee on Nutrition and Human Needs:

George McGovern, South Dakota, Chairman
Philip A. Hart, Michigan
Walter F. Mondale, Minnesota
Edward M. Kennedy, Massachusetts
Gaylord Nelson, Wisconsin
Alan Cranston, California
Hubert Humphrey, Minnesota
Charles H. Percy, Illinois
Marlow W. Cook, Kentucky
Robert Dole, Kansas
Henry Bellman, Oklahoma
Richard Schweiker, Pennsylvania
Robert Taft, Jr., Ohio
Kenneth Schlossberg, Staff Director

Hearings on Nutrition Education: An Overview,
December 5, 6, 1972

Present: Senator Schweiker, presiding
Staff members: Schlossberg, Goetcheus, and Hottel
Witnesses:
December 5: Nutrition Education - An overview

1. Dr. Jean Mayer, Professor of Nutrition, Harvard University, Cambridge, Mass.
4. Dr. George Briggs, Executive Editor, The Journal of Nutrition Education and Professor of Nutrition, University of California at Berkeley
5. Dr. George Christakis, Professor of Community Medicine, Mt. Sinai School of Medicine, New York, N.Y.

December 5: Nutrition Education: The Administration

1. Mr. Richard Lyng, Asst. Secretary, USDA
2. Dr. Merlin Duval, DHEW, Asst. Secretary of Health and Scientific Affairs
3. Dr. Ned Bayley, USDA, Director of Science and Education
"The problem [nutritional ignorance] is not limited to laymen since even the medical profession and some allied health professions have had very little exposure to problems of nutrition."

There are some factors which . . . make the choice of a good diet by our population more and more difficult. . . . Our food supply is becoming more and more complex. [The food supply] is represented by an average of 18,000 different articles in the supermarket, but may have 500 added new products every year. Its difficult for the housewife to reorient herself in this maze. . . . Labeling is going to make the task of the housewife easier. . . . There is little doubt that labeling by itself had an enormous impact on improving the buying habits and in sensitizing people to the need for nutrition knowledge. . . . If nutrition labeling is going to be widespread. . . . Then the need for nutrition education to take full advantage of this labeling becomes even greater."

"The variety . . . of our food supply is compounded by the problem of advertising. . . . Advertising has resources which, at this time, are literally hundreds of times greater than those available in the Federal budgets for nutrition education. . . . If your look at the amount of money spent on advertising I think you will note that. . . . The amount is in inverse relationship to the nutritional usefulness of the products advertised. . . . The net effect of food advertising becomes an exercise in miseducation of the public -- miseducating people from the better foods to the poorer foods. This is because . . . of the structures of the industries involved. Fruits and vegetables are produced by thousands of small producers who have very few brands or no brands to protect. . . . At the opposite end of the scale, the soft drinks industry is dominated by two giants with only three or four other large producers. They have very well established brands, and very large advertising budgets. . . . They end up with enormous resources to further destroy our eating habits. . . . We have a very tired mind, subjected everyday to tremendous amount of information which is mostly misinformation--by people who have something to sell. . . . The result of all this is that it will be even more difficult to teach proper nutritional education."

"When we speak about education, the immediate connotation is schools. Indeed this is where we could start -- at least, with your children. . . . our educational system is not doing a good job of teaching nutrition. . . . schools are already overburdened with teaching responsibilities. . . ."
deal with a multiplicity of subjects, with everyone from the school committee to the Red Cross having something that they want the schools to teach. . . schools end up doing a poor job of what they are primarily concerned. . . To add new subjects in the classroom without helping the schools is understandably resisted by teachers--many of whom, anyway, are poorly prepared for the job of teaching nutrition and don't have any interesting material available.

. . . we have done a study of what young people actually know when they graduate from high school. We have been struck by the very small impact of the teaching of nutrition. . . we have also been struck by the fact that boys knew as much nutrition as the girls and were very much more interested. . . [What coaches say] seems to have more impact than what the home economics teacher says to girls. . . School lunch--as is written by law--should be the occasion of teaching some nutrition. . . if the teaching at school is collated with exhibits and material in the store [as] middle-class [children] accompany their mothers to the store. . . [and] in poor neighborhoods the children very often do the shopping for their mothers.

. . . This teaching [should be complemented] with . . . the teaching of nutrition in health science courses required in many junior colleges and colleges throughout the country.

The teaching of nutrition in medical schools is obviously essential. . . it need not be very expensive. " . . . it would be a great mistake to think of nutrition education as something which should only happen at all levels of schools. It is essential to have it happen in other media. . . more public service time on television should be made use of. . . its essential to have available much better short public interest messages and short films available for showing to the national audience. . . Also, we need to have Federal Trade Commission--particularly the Federal Communication Commission--insist that these public interest messages be shown. . . at times which they will be watched. In particular, that the scandalous amount of misinformation given on the Saturday morning television to small children be replaced by valuable nutrition information which, from an early age, will reinforce what we hope will be the sound teaching of their parents and of the schools.

When those of us. . . were young, we indeed received far less nutrition education. On the other hand, we had many more set food habits. The nutrition of one family was controlled by the mother. . . The destruction of food habits
by the destruction of meal habits, the appearance of completely erratic snack and mealtimes, the erroneous multiplicity of foods that look like and almost taste like traditional foods but have very different nutritional values--these are the reasons why we now need a great deal of nutrition education where somehow we managed to survive without it. . . a large part of our population is essentially one ridiculous diet after another.

It's [the lack of nutrition education in medical schools] because of the way in which medicine is practiced and paid for. . . [it] is really crisis oriented. . . Anything which is long term like nutrition--which is going to either weaken your resistance . . . or is going to cause you to develop a coronary. . . is not really what the doctor is called to do anything about.

. . . I think we need to put a lot of attention into preventive medicine; a lot of attention into health education in general; and, I may add, that every dollar spent in that area is going to be a great investment of cutting down on expenditures in case after the fact." [in answer to Schweiker] " . . . it seems to me that . . . $100 to $200 million a year would probably do a very good job [of nutrition education]. . . 1% of the appropriation ought to go for nutrition education. I am not aware that the money is spent. . . 1% of the Federal expenditures for school lunches, which is in the order of $1.5 billion, so that 1% would be $15 million, ought to be spent right away.

[in answer to Schweiker] "I think there are two critical periods [for nutrition education]. The first is when very small children before they go to school -- and this is why television . . . messages are so important. The other period is adolescence, where people develop their adult self-image and do, in part, change their food habits and adopt food habits which they are likely to keep throughout life.

. . . When we looked at advertisements for small children. . . they advertised essentially sweetness. . . appearance. . . taste. . . but they gave no information on the nutritional content of what the children were sold. . . It is unfortunate that those breakfast cereals advertised to small children tend to be the ones that are the least useful. . . that are covered with sugar. . . to the extent that there is more sugar in them than cereals. . . I believe that if the techniques for advertising them had not been used those cereals could not be sold.
Testimony of Robert Choate, President, Council on Children in the Media and Merchandising:

"... if you look at the advertisements of food today, you will find that a new science or technology came into being after World War II. There are very famous cameramen who have made reputations on the basis of how they photograph foods. ... I asked the Advertising Age Magazine to give me a breakdown of how the Nation's major food companies allocated their advertising dollars in the year 1955 and again in 1970. ... The total for advertising in measured media was $683 million in 1970 as opposed to $181 in 1955. If you include other sales promotions, the food industry today is spending $2 billion per year in advertising its products.

... Television is the food educator of this country. The moderate TV watching child of today sees 5,000 food commercials a year, 80,000 by the time he is 16 years old.

... It is interesting to note the absence of nutritional information in ads, at the same time, the Gaines dog food ads discuss nutrients in 30 or 60 second ads.

... during the 1960's children came into the target area of the food advertising moguls. They perceived that children could be made salesmen within the home... persuade the mothers. A recent study by Professor Scott Ward... show how successful is the effort... when children were begging for breakfast cereals, 88% of the mothers interviewed said they complied with children's wishes. When snack food was the subject... 52% complied: candy, 40% complied; soft drinks, 38% complied. In January, 1972, during 29 hours of children's television, 82% of the 388 network commercials aired were for ingestible items such as food, drink, candy, gum or vitamin pills... Products advertised between 9:32 and 10:54 Saturday morning, October 14, 1972 were:
Fruit Loops, Milky Way candy bar, a toy, Cheerios cereal, Baron Von Redberry cereal, a toy, Hershey Instant Chocolate, Burger King Drive-In Restaurant, Beechnut Lifesavers, Captain Crunch cereal, Kraft caramels, a toy, Post Pep, Post Super Alphabets, a toy, Post-Sugar Crisps, Libby Frozen Dinners for children, PDQ Chocolate Chips, a toy, Post Sugar Orange Crisps, Post Honey Combs, a toy, Chef Boy-Ar-Dee Beefaroni, Kellogg Product 19, Snickers candy bar, and a toy. Thus in 90 minutes children saw 40 ads, 27 of them on food.

Nutrition education can be revitalized and modernized, no matter who is teaching it. It must be shaped to cope...
with food manufacturer's natural inclination to pursue greater profits in sales of more frivolous foods."

"I recommend an overhaul of the classroom materials now used in schools. I recommend new educational tools for the playground, the home, and the classroom. I recommend using television. Nutrition education must start on Madison Avenue. I don't think there are many places where ignorance of food values exceeds that to be found in the advertising profession. I don't know of any really positive steps taken by the American Association of Advertising Agencies. It should not take a blast to convince any more agencies that they are maintaining the nutritional illiteracy of this Nation. But if a blast is needed, I think we ought to do it. We do know that food companies today are starting to have sincere interest in nutrition. Unfortunately their advertising agencies are lagging behind.

The Federal Trade Commission is currently developing guidelines for affirmative declaration of nutritional worth in the advertisements of foods. This is comparable to the FDA efforts on labeling. I think we have gone the last mile with the food manufacturers, the food agencies, and the broadcasters who carry their messages, and unfortunately we have to resort to a government agency to get people to be ethical.

There are some hopeful sights on the nutrition education front. but they are a mere drop in the bucket when compared with the massive miseducation message currently sponsored by the Nation's major food manufacturers."

[in answer to Schweiker] "It is up to the advertising man to convince the [food] company that there is a position on the shelf and that one can position a product successfully. if the adman is successful, away they go on a multimillion dollar advertising campaign. A great, great many of our foods today are more invented by advertising men than they are by food technologists.

I think Congress operating through this Committee could keep enough pressure on USDA, HEW, a FDA and FTC, so that something improved in nutrition education."

Testimony of George Briggs, Professor of Nutrition and Helen Ullrich, Editor, Journal of Nutrition Education

"I have been asked to define nutrition education. We believe that it is broadly defined as the imparting or dissemination of information about nutrition in all of its aspects including training in the science of nutrition, as well as its interpretation and application to eating habits in order to insure optimal nutritional health."
"... People in position of leadership don't really understand that malnutrition exists in this country... in a very large way. It exists in many forms, such as hunger and malnutrition resulting from inadequate intakes of certain nutrients, overnutrition, obesity in all its forms, and dental decay. Malnutrition exists because of inadequate food supply to many people, poor food choices, misuse or overuse of certain foods like fats and sugars and alcohol, and overconfidence in the powers of so-called health and organic foods.

The cost to society of undernourished mothers and their sickly infants, physically and mentally inferior children, absenteeism in the working force and school children, the great loss of life from cardiovascular disease and hypertension, the costs of dental decay, alcoholism, diabetes, obesity, digestive disturbances, osteoporosis, can all be attributed in part to poor nutrition. We estimate that the annual costs to our country from hunger and these examples of food mismanagement is approximately $30 billion [this is] equivalent to 1/3 of the Nation's health bills. It also represents 25% of our national food bill.

... Poverty is a primary factor. However, it is well documented that persons with adequate and affluent incomes also have nutritional problems... Nutritional misinformation is another factor... social, cultural, and religious traditions attribute to the problem—for example, the soft drink and poor snacking habits of many Americans are well known and are often socially related... Motivational advertising to buy certain foods is another factor... Several billion dollars in food advertising is directed each year at young children to motivate the choice of new, highly processed foods of questionable nutritional value... These foods appear attractive, taste good and have "mouth appeal" and texture... They add to the lack of nutritional willpower and knowledge.

... It is tremendously important to develop each individual's nutritional knowledge so that he will be motivated to choose an adequate diet... It is more than just having information... [one has to be] motivated to do these things.

The food industry has a responsibility to produce foods that are nutritious... to advertise food which is less than nutritionally optimal as being special or super-special is misleading... An important way to improve this condition is to develop some sort of regulation of advertising and labeling... They do not take the place of education, but are part of the educational program. There must be additional funds provided to develop an educational program making use of this information."
"Every child of the next generation should, by the time he is 18, have sufficient knowledge of food values and nutrient needs. This would require the cooperation of USDA and HEW. . . . At present there are very few projects . . . it is very strange that there is no one in the Office of Education whose primary responsibility is to put nutrition education in the curriculum. . . . Nutrition Education component of the child nutrition program in USDA is limited by meager funds from which both nutrition education and school food service training programs must be developed. . . . There should be strong national leadership in the development of guidelines for ways in which nutrition can be incorporated into the educational system from pre-school programs to high school. . . . Our schools need to teach the 4 R's - reading, 'riting, 'rithmetic and right eating.

Nutrition education . . . is a lifetime process. In the areas of health and disease . . . tremendous waste of national income exists. For example, 50% of the money spent on dental care could be saved by proper nutrition programs. Effective nutrition education could reduce the incidence of obesity by as much as 80%.

In order to implement programs there must be nutrition training for leadership. . . . expanded programs at all professional levels. . . . teachers will need in-service training and college level training. Health Specialists should have nutrition incorporated in their training.

. . . There is need for legislation to appropriate funds for research in nutrition education and the development of educational materials.

. . . A National Nutrition Education Council is badly needed. USDA, HEW, state governments, the food industry, community public health officials, schools, families have a responsibility for nutrition education. . . . priorities need to be established. For instance, what is the nutrition message that you are going to give to different people. . . . the Council should be established to develop an overall policy and coordinate the efforts of all groups."

[in answer to Schweiker] "... we need leadership in the Office of Education . . . through which programs could be developed. . . . there should be established a section within that office whose primary concern is all aspects of nutrition education." [in answer to Schweiker] "... the specific product that looks like a cupcake, is to me like giving candied cigarettes to a 4-year-old. I don't think it teaches good habits... I know that you cannot get our experimental animals to grow by adding 10 to 12
nutrients to purified materials. That is not good nutrition. . . . We can't provide all the nutrients we need in a synthetic diet. . . . When we supplement fat and sugar and flour with eight or ten nutrients, we do not make a complete diet."

Testimony of Dr. George Christakis, Professor of Community Medicine

"... I believe there may be some constitutional grounds for the statement. Every child should have the nutritional ability to fulfill the genetic potential with which he is endowed.

... In order to maintain health, prevent nutritional anemias, and other specific nutritional deficiencies, and utilize current knowledge to help prevent public health problems such as obesity, coronary heart disease, hypertension and diabetes, nutrition education must be a concern of all of us.

... Nutrition education should be part of every training curriculum for teachers at all grade levels from pre-school to medical school. It should be available through official and voluntary agencies utilizing every mass communication media available in order to particularly educate the poor, young pregnant women, mothers and the elderly, all citizens, rich and poor.

... particularly, it should be an integral component of the curriculum of preschool, primary, secondary, college, and postgraduate level students.

... The public must be given the knowledge to understand that 2 key principles of nutrition education must be implemented:

(1) Variety of foodstuffs to assure adequate access to 40-50 essential nutrients required by man. (2) Moderation of those foods which provide relatively few nutrients in a high calorie package.

... Nutrition knowledge has greatly increased in the last 4 decades. ... We know these things. Now it remains for nutrition education--and for those concerned with it--to implement this knowledge through action education programs.

The public must be so well educated... that they will be able to judge what is proper nutrition information and ignore self-styled nutrition experts who serve to confuse the public.

... The Food and Nutrition Board should be charged with the responsibility of identifying guidelines for desirable nutritional patterns. Only with such information could the
public be able to judge the barrage of advertising material to which it is exposed, particularly as these food advertisements affect the nutritional behavior of children.

"... the availability of a variety diet and knowledge of how to put it together through desirable eating behavior patterns can do much to improve the public health status of Americans of all ages." [in answer to Schweiker] "about 10% of the medical schools currently include nutrition ... we have a nucleus of people in medical schools who can be rallied to this [nutrition education] objective given the funds."

Senator Schweiker, closing remarks:

"I believe these hearings are illustrating education is clearly an important part of an overall program of preventive medicine. We are showing, too, that there are great gaps in this area, nationally, which need to be filled. Also the hearings point to the urgent need for a coordinated national policy as an integral part of overall effort to keep our people healthy."

Staff members Schlossberg, Goetchens and Hottel.

Senator Hart, opening statement:

"The purpose of these hearings is to explore the scope and meaning of the phrase nutrition education. Since the inception of this committee, we have repeatedly heard of the need to investigate nutrition education and to give any efforts along these lines our support. The question many of us have had is 'What does nutrition education mean?'

Our reluctance to devote significant time to this question, I think, is attributable to a virtually unanimous feeling of the Committee--with our limited resources, manpower and time--the question of physical hunger and its alleviation, though the provision of adequate food, was our first priority. No one could convince us 3 years ago -- and no one will convince me today -- that knowledge of the importance of food is an adequate substitute for food itself. ... These hearings offer us the opportunity to look into the frequently repeated warning that an adequate income no longer guarantees an adequate diet. If that is true, why is it so? Yesterday this Committee heard a great deal of support for that allegation from a wide array of highly competent witnesses. Today, I would like to welcome two panels of witnesses from the Administration. ... Generally speaking we want to learn about the education efforts in the area of nutrition that have been undertaken. ... We want to know about the educational value of the Federal Food programs. We want to know what role you see for the concept of nutrition education.
in the development of a sound National Nutrition Policy."

Testimony of Mr. Lynne, Assistant Secretary, U.S. Department of Agriculture:

"... We have good reason to be grateful for the ample food supply ... and the affluence that permits the wide choice of food we eat. But it is also true that this wealth of production ... creates a greater need for wisdom in the choices we make. A need for nutrition education.

... I have more freedom in pointing to the decades of achievement by home economists throughout the country in bringing nutrition knowledge to people everywhere ... USDA Handbook No. 8, containing the results of exhaustive research into the nutritional composition of foods, has for years been the basic reference for teachers ... As for those interested in a less technical approach, USDA has provided the widely used Daily Food Guide or Food for Fitness. Several Yearbooks of Agriculture—the 1969 one titled "Food for Us All" and the 1965 "Consumers All" ... also stand as benchmarks in the effort to impart available nutrition knowledge to the public.

... good [food] planning can come only from knowledge. We try to do this within our programs. The Food and Nutrition Service has put informative labels on the foods distributed to families. In the Food Stamp Program, the inside cover of the millions and millions of food coupons carries a nutrition message about the 4 food groups and the importance of ... of buying and using a variety of foods. There are numerous educational materials that FNS uses. These educational efforts are carried out cooperatively with the State and local governments—extension agents, public health workers and home economics teachers.

... The 1970 amendments to the USDA school lunch and other child nutrition programs gave us a much needed boost to improve the quality of nutrition training of school food service workers and supervisors.

... A 10-part television nutrition training course for school food service workers is under development." Nutrition training short courses for school lunch workers were conducted by state universities in each of 5 FNS regions last year. A FNS information and educational materials center has been set up at the National Agricultural Library in Beltsville, Md.

...the National Dairy Council,... the Poultry...
groups—turkey and broiler organizations, grain, cereal, and rice associations, ... all together render great service to the cause of balanced diets through the dissemination of available nutrition knowledge."

Finally ... a significant point needs to be made about nutrition education. Education--the act of educating--is basically the transmittal of knowledge from one person to another. In the field we just do not have enough knowledge to transmit. Our understanding of human nutrition lags far behind our knowledge in other health areas [emphasis added by witness]. Some of the weakness in nutrition education can be related to the fact that there is lack of accurate information to turn-out.

... I would urge more attention to research to gain knowledge, before we can turn all our enthusiasm and resources to a total concept of nutrition education. We can only impart available knowledge, and the knowledge of nutrition we now have is insufficient. ... We must enlarge the body of basic information on the subject."

Testimony of Dr. Duval, Asst. Secretary for Health, D/HEW:

"... My statement will highlight our ongoing activities and proposed new initiatives which are aimed at improving the nutrition education status of both recipients of HEW Program and the entire American public.

... We see nutrition education as a process whereby the significant facts of nutrition are acquired by people in such a way that nutritional behavior changes. ... It includes education to influence the eating habits of individuals, nutrition education in school curriculas, advertising and food packaging.

... Nutrition education should be an element in the education a person receives regarding personal health. ... There are particular groups which need a more detailed and focused approach. These include: (1) people who influence others, and (2) people who have exhibited, or are at risk with respect to nutritional problems. In the first group are parents, teachers, physicians, family case workers, nurses, nutritionists, health aides and others. ... In the second category ... The pregnant mother, the pregnant teenager, as well as teenagers in general, preschool children and the elderly."
In the Office of Education, under the Vocational Education Amendment of 1968, Federal funds are allocated to State departments of education for consumer and homemaking education. In addition, there are fellowships to colleges and universities to help prepare teachers in food and nutrition which comes from the Office of Education.

Within the U.S. Public Health Service, the Health Services and Mental Health Administration undertakes major nutrition surveys in order to identify the groups that are at the highest risk. Secondly, examples include specific nutrition education programs for the high-risk groups such as Indians, Alaskan natives and migrant workers. Third, I would mention in this unit as an accompaniment, we introduce nutrition education as part of the Maternal and Child Health, Children and Youth, and Maternal and Infant Care projects that are operated by those units.

Also, the U.S. Public Health Service in the National Institutes of Health, the National Heart and Lung Institute sponsors now the lipid research clinics which, as you undoubtedly know, are being set up around the country to encourage and foster the diagnosis and interpret the significance of the hyperlipidemia because of the apparent relationship to arteriosclerosis and hypertension that hyperlipidemia apparently represents...

We operate large research programs in the National Institute of Child Health and Human Development, in the National Institute of Arthritis, Metabolism and Digestive Diseases, in the National Institute of General Medical Sciences, and the National Institute of General Research; and the basic research characteristics of nutrition and its importance from the viewpoint of organ and total body health.

In the area of manpower training, we operate and support allied training programs including those for dieticians and nutritionists. We also help support the training of nutrition teachers and faculty members, one example of which, as you well know, is your own very excellent program at the Public Health School of the University of Michigan.

In the third unit of the Public Health Service—the Food and Drug Administration—we have recently undertaken nutritional labeling. I know that you will want to come back to that a little later—nutritional labeling as opposed to an ingredient labeling.

Secondly, FDA has been deeply engaged in the publication of a series of nutritional guidelines that have been arrived at by the National Academy of Sciences National Research Council as to those that may be pertinent to
the precooked, frozen, "heat-and-serve" dinners; and, more recently, the guideline for frozen main dishes.

The Social and Rehabilitation Service Division of HEW is learning how to combine nutrition education with nutrition projects within the Administration on Aging.

[In answer to Senator Hart] It [the amount spent on nutrition education] may prove to be surprisingly large. It may be larger than the amount suggested [$130 million annually].

Miss Schneider (in answer): "Yes I share the responsibility for coordinating nutrition education for the Office of Education with Dr. Mary Hunt who is in Vocational Education. The new game of the group is Occupational Technical Education."

Senator Hart: "Well, what programs are underway?"

Miss Schneider: "Under the Vocational Education Act of 1968 there are many programs underway. In the remainder of the offices—as you know decisions about what goes into curriculum materials are made at the State and local level. Even though money is available to support curriculum development; for example, whether nutrition is included would be a local and State decision. In many instances nutrition is given some high visibility; and, in other instances, it is not. The Office of Education does not have a policy, nor can it mandate that nutrition education be included in any program."

Senator Hart: "Is there any inspector in the field to find out what kind of nutritional education programs are, in fact, going on?"

Miss Schneider: "In selected number of programs, I suppose that would be true."

Senator Hart: "What nutrition and health services pilot projects are now in existence?"

Dr. Duval referred the question to Dr. Law who answered with regard to several nutrition surveys and services dealing with nutrition disorders among Indians and Alaskans. These include nutrition education in cooperation with the Office of Education, the Department of Agriculture and with the Center of Disease Control. Other projects are also noted to be part of migrant health projects—funded to provide health services to migrant agricultural workers. Nutrition education is included.
Dr. Burton, Assistant Director, National Institute of Arthritis, Metabolism and Digestive Diseases, National Institute of Health, alluded to the efforts on the part of the National Institute of Health which distributes booklets that furnish preventive health information.

Dr. Johnson, Director, Division of Nutrition, FDA (in answer to Senator Hart): "...if we are talking about nutritional labeling and walking away from everything else, I would agree that some people will not be able to utilize it as I think they should... We are proposing now an ongoing nutrition education using nutritional labeling as a sort of little textbook associated with it... I am encouraged with my discussions with major food companies... they would like to get involved in education so that their products are correctly identified and people know and understand them... We must do more than just put numbers on a label."

Senator Hart: "Are you suggesting that it is possible that the manufacturers of food products will find that nutrition will sell?

Dr. Johnson: "I will go out on a limb to say I think they will."

Dr. Duval: "...I might prefer to see nutritional labeling mandated. I would prefer, however, to get there by evolution rather than by putting it in place quickly... I believe that if you mandate nutritional labeling that they, (Americans) will believe they are buying nutritious foods. ...I would submit... that you can sufficiently make a package attractive and you can sufficiently promote something with no value; and then label it with complete integrity as having no value... You will not solve the problem by that device."

Mr. Quinn, Staff member: "Is it your impression that most (nutrition education) programs are aimed at low income families?"

Dr. Duval: "That is difficult to answer... I think in aggregate the answer would be no, but that is only at best a guess."

Testimony of Dr. Ned Bayley, USDA Director of Science and Education (accompanied by associates):

"...Everyone needs nutrition education. According to current research data... which show the problem cuts across income levels. Responsibility for nutrition education at the federal level fails in the following areas:
1. Provision of leadership—information, interpretation and methodology—for newly enacted congressional legislation—for the Nation and to the States.

2. Provision of leadership for desired Federal legislation relative to food and nutrition.

3. Provision of an exchange of information on nutrition education for all population groups—agency to agency; State to State.

4. Maintenance of an inventory of present programs concerned with food nutrition.

5. Maintenance of an inventory of unmet needs of population groups related to food and nutrition; make recommendations to State governments, industry, research centers for educational programming and for research studies.

6. Promotion of State, regional, national and international workshops and seminars for purposes of delineating problems and outlining procedures for solution.

7. Provision of a national food and nutrition resource center—information resource personnel and materials.

8. Development of guidelines and plans for supervision for federally-funded programs as EFNEP, School Lunch and Food Stamps.


10. Special consideration of vulnerable groups.

11. Improvement of nutritive values of foods.

12. Provision of current nutrient food values, standards and tolerances, and so forth."

Testimony of Nancy Liedenfrost, Deputy Assistant Administrator, Extension Home Economist, USDA:

"... the Expanded Food and Nutrition Education Program has brought about a new approach to nutrition education, namely, that paraprofessionals work with low income families... Analysis of food recall showed marked improvement in nutrition patterns over a period of time... One of the most significant increases has been the amount of fruit and vegetables consumed.

... While attention is presently focused on the poor, nutrition education needs of other segments of our society are not forsaken... A 30-minute weekly broadcast on a network of 12 radio stations in Iowa, Minnesota, Nebraska, Oregon, Indiana, Missouri, Michigan, and the District of Columbia is now in its 10th year. Extension conducts nutrition education programs on public service line.

... A nutrition series for young homemakers was a cooperative activity of the Minnesota and Wisconsin Extension Services... in Iowa, 100 teenage girls
with weight-centered problems were taught nutrition. Many children are also reached indirectly through Extension Workshops for professionals.¹ [The remainder, the testimony alluded to scattered nutrition education efforts related to older citizens, handicapped and minorities.]

Testimony of Dr. Ruth Leverson, Science Advisor, Agricultural Research Service, USDA:

"... We view the objectives of nutrition education as (1) to inform; (2) to motivate; and (3) to adapt the message to the special needs and interests of the recipient. To accomplish such objectives, we need research in the social sciences that tells us (1) What are the food choices being made... (2) Why are these choices being made... (3) How to motivate modification of behavior in each target group - by age, socioeconomic status, education, cultural ties, goals, and aspirations, and (4) How to reinforce and/or sustain desirable habits.

... There are 5 regional projects in human nutrition research program of the State Agricultural Experiment Stations and nine projects in the program of the cooperating institutions that will contribute... to developing guidelines for nutrition education... Collectively, these comprise a national nutrition research program with many components that relate to nutrition education." [Tentative findings of some studies were then reported--p. 180-182, Congressional Record, Dec. 6, 1972; Hearing held before the Senate Select Committee on Nutrition and Human Needs).

Senator Hart questioned the panel with regard to the use of the fortified cake product in child feeding programs.

Mr. Olson, Deputy Assistant Secretary, Marketing and Consumer Affairs (in answer to Senator Hart):

"... the fortified breakfast cake itself arose in response to another set of criticism. It was that the food industry was not using the technological capacity... to answer the feeding problems that appear in both urban ghettos and in rural areas."" Senator Hart: I took the side of the engineered package. I am mindful of the desirability of responding to all the arguments that are run into when we go to a school board... However, I have been lectured to try to persuade us that it would be possible to have this
cupcake, but without the presence of such a high factor of the items that contribute to overweight, tooth decay, diabetes and heart disease."

Dr. Leverson:

"... I think that much of our problem with our school feeding has been that we have not sold the idea that a well-nourished child is a better student and a better member of society. ... I think the tendency is very easy for the lay person and the public and some technologists to think that as long as they have the nutrients ... then they have a nutritious and a complete food—and nothing could be more erroneous."

Further questioning of witnesses revealed that Section 6 funds (so called because it is in Section 6 of the National School Lunch Act) which allocate money to nutrition education, were not utilized but "carried over." Money available under Section 10 was also largely unused. According to the witnesses, many requests for either Section 6 or Section 10 money did not meet the required definition.

Mr. Quinn: "... Several states, right now want to use child nutrition money for nutrition education efforts. They are being denied the opportunity to do so because of someone's interpretation of the law. ..."

The panel of witnesses failed to comment without the use of documents not available to them at the time.
Nutrition Education. March 5-13, 1973

Members of Senate Select Committee on Nutrition and Human Needs, 1973:

George McGovern, South Dakota, Chairman
George E. Talmadge, Georgia
Philip A. Hart, Michigan
Walter F. Mondale, Minnesota
Gaylord Nelson, Wisconsin
Alan Cranston, California
Hubert H. Humphrey, Minnesota
Charles H. Percy, Illinois
Marlow W. Cook, Kentucky
Robert Dole, Kansas
Henry Bellman, Oklahoma
Richard S. Schweiker, Pennsylvania
Robert Taft, Jr., Ohio
Kenneth Schlossberg, Staff Director


Present: Senators McGovern, Percy and Schweiker
Staff members: Schlossberg, Goetcheus, and Hottell.

List of the Witnesses

March 5
Dr. Jean Mayer, Professor of Nutrition, Harvard School of Public Health, Boston, Mass.
Dr. Abraham E. Nizel, DMD, MSD, Associate Professor, School of Dental Medicine, Director, Action for Children's Television (ACT), Newtonville, Mass.
Dr. James H. Shaw, Professor of Nutrition, Harvard School of Dental Medicine, Boston, Mass.
Dr. Juan Navia, Senior Scientist, Institute of Dental Research, University of Alabama, Birmingham, Ala.

March 6
Mrs. Peggy Charren, President; accompanied by Mrs. Evelyn Sarson, Executive Director, Action for Children's Television (ACT), Newtonville, Mass.
Mr. Robert B. Choate, Jr., President, Council on Children, Media and Merchandising, Washington, D.C.
Mr. Tracy A. Westen, Director, Stern Community Law Firm, Washington, D.C.
Mr. George W. Orr, Jr., Executive Vice President; accompanied by Mr. Daniel R. Johnson, Associate Counsel; and Dr. Bruce Semple, Vice President, Medical Affairs, Miles Laboratories, Inc., Elkhart, Ind.
March 7
Mr. Joseph E. Lonning, President and Chief Executive Officer, Kellogg Company; and Mr. William LaMothe, Executive Vice President and Chief Operating Officer, Kellogg Company
Mr. Leonard S. Matthews, President, Leo Burnett Co., Inc.
Miss Mercedes Bates, Vice President-Director, Betty Crocker Kitchens.
Mr. Stuart B. Upson, President and Chief Executive Officer, Dancer Fitzgerald Sample, Inc.
Mr. Richard Aszling, Vice President, Public Relations/Public Affairs, General Foods Corporation; with Mr. Bernard Kanner of Benton Boys.
Mr. Edward N. Ney, President and Chief Executive Officer, Young and Rubicam International, Inc.

March 12
Mr. Stockton Helffrich, Director of Code Authority, National Association of Broadcasters.
Mr. Herminio Traviesas, Vice President, Broadcast Standards, NBC.
Mr. Thomas Swafford, Vice President of Program Practices, CBS.
Mr. Alfred R. Schneider, Vice President, ABC.
Mr. Howard H. Bell, President, American Advertising Federation.

March 13
Mr. Clay Whitehead, White House Office of Telecommunications.
Hon. Lewis A. Engman, Chairman, Federal Trade Commission.
Hon. Dean Bruch, Chairman, Federal Communications Commission; and Hon. Nicholas Johnson, Commissioner, FCC.

Senator McGovern, opening statement:

"... There is increasing concern, evidenced by professionals and laymen alike, about the quality of the American diet. ... Surveys indicate a disturbing decline in some very important parts of the traditional American diet ... accompanied ... by a striking increase in the consumption of an array of non-traditional kinds of snack foods.

This committee has heard testimony from experts in the field of nutrition education that the potential costs, potential health costs of nutritional ignorance may be amounting to billions of dollars. These experts have emphasised to the committee the critical role that proper nutrition education can—and must—play as part of a total behavioral preventive health policy.

... The committee has become aware of the special importance that TV now plays in influencing the Nation's nutritional habits. The TV advertising of food products now exerts an enormous new influence on the Nation's children ... the committee scheduled these hearings because it believed it had special responsibility to investigate this area and because it believed the companies and advertising agencies, involved in this area had a responsibility to review their practices and policies in relation to the types of nutrition education messages.
It was for that specific reason that the committee invited the major manufacturers of children's cereals, and their advertising agencies for those cereals, to testify before us this Wednesday. After initially indicating a willingness to testify, the companies and advertising agencies... declined to testify because of the nature of the hearings -- that is, because of the scope of nutrition health questions being raised. They took the position that the subject of the hearings conflicted with a complaint issued against the companies by the Federal Trade Commission.

... After examining the nature of the FTC complaint, the staff advises me that the FTC complaint focusing on questions of restraint of trade and monopoly power bear only the most indirect relationship to the basic kinds of nutrition education, health and diet questions which are the subject of this committee's investigation... I cannot, therefore, accept the refusal of the companies and the advertising agencies to appear before this committee... I intend to convene... an executive session of the committee so that the members may decide what further steps they wish to take to insure that this committee can proceed as planned."

Testimony of Jean Mayer, Professor of Nutrition, Harvard School of Public Health:

"... We already know that it [advertising] has an enormous influence on the feeding habits of the Nation. At a time when... such diseases as cardiovascular disease, diabetes, obesity, and dental decay emerge as chief threats to the health of the Nation -- together with cancer -- the importance of nutrition is more and more evident.

Now its quite obvious that the food industry itself believes that advertising is a very potent factor in molding food habits... The food industry is a very heavy advertiser. A single company spent, in 1971, as much as $160 million. Soft drink companies are also very large advertisers with expenditures... being in the order of $200 million per year.

Advertising to small children is an important component of such advertising... [The advertising] children are exposed to... goes on at a very much higher frequency than in adult programs. Also... the advertisements are prepared with much more care and more artistry than the programs themselves... [According to] surveys such as the Carnegie Foundation Survey, the average American child may be exposed to as much as 5,000 food advertisements a year."
Advertising is a neutral technique — there are many examples where it can be found to play a beneficial role . . . large food companies are certainly able — if they so choose — to produce informative educational ads . . . On the other hand it is difficult to escape the conclusion that advertising of food is playing a deleterious role . . . that many of the children food advertisements are nothing short of nutritional disasters . . . It is fairly obvious even to casual television viewers that national advertising expenditures are in reverse order to the usefulness of the good groups . . . the fruit and vegetables and such things receive very little advertising . . . by contrast . . . soft drinks, alcoholic beverages . . . advertising is an extraordinary large item.

. . . in spite of the good will and excellent intention of many of its [food industry] leaders . . . which resulted in a very strong endorsement by the food industry leaders of the concept of nutrition education . . . the structure of the food industry and advertising industry end up with the whole weight of enormous resources for advertising going toward the destruction of our food habits.

. . . good cereals are an extremely useful food . . . the consumption of a good breakfast cereal with small amount of sugar and skim milk is an excellent way for people to get a good breakfast and reduce their intake of fat . . .

Unfortunately, what is being propounded to children is extremely heavily coated cereals with a great deal of sugar . . . I have some very serious questions as to whether the Federal Trade Commission should, in fact, tolerate the fact that . . . products which have more than 50 percent sugar should be called cereal. I think they perhaps might properly be called candy.

. . . The promotion of high-sugar snacks and soft drinks is a danger for children as well as for adults.

. . . the community . . . has a special duty as regards children. I believe that this ought to express itself by regulations . . . on health and nutrition information, and health and nutrition advertising as it applies to small children.

. . . I would hope that large food companies would exercise . . . restraints by stopping advertising to children. Stop making small children, in effect, agents in an unconscious blackmail plot against their parents . . . ."
[in answer to Sen. McGovern:] "... The influences before children go to school are extraordinarily important. I have appeared before this committee about the importance of having better nutrition education programs in schools... However, I am afraid that, even with a vigorous nutrition education program, we might be locking the barn after the horse has been stolen. Before the first six years of their lives children have been exposed to very striking lemons... it becomes very difficult, all of a sudden at the age of 6, to revert the whole process and explain to them that the first reason we eat is to get the necessary nutrients... I would rather have the children already preeducated... rather than having been manipulated."

[in answer to Sen. McGovern re "King Vitamin Cereal advertised as meeting 100% of the daily requirements of various types vitamins:] "Vitamins are extremely important... but so are other components, for example, trace minerals. Cereals, some of which are highly processed so that their intrinsic nutrient content is very low, particularly when combined with sugar, which is the prototype 'empty calories', are not a complete food even if fortified with 8 or 10 vitamins... Sugar coated novelties are too often empty calories with, as I say, some vitamins thrown in."

Sen. McGovern: "... Would you say the place to begin [nutrition education] to work is with the food companies and their advertising agencies to try to develop a more responsible advertising campaign?"

Dr. Mayer: "I think this is certainly desirable."

Sen. McGovern: "There is a lead story in today's issue of 'Advertising Age'... in which cereal makers say that these nutrition hearings are rigged and that is why they won't appear... The article says: 'But one cereal representative candidly admitted a major consideration is that the industry doesn't have pervasive answers on sugar or children's TV!... I suspect there isn't very much defense for marketing products to children in the name of cereals that contain 50% sugar... But I want to make it clear that the committee would like to hear the positive side of what the industry has done in the field of nutrition education."

Statement of Senator Percy:

"... For quite some time I have felt that this subject (Nutrition Education) was a key one for our committee to explore... I have repeatedly urged the committee to organize hearings on all aspects of nutrition education... As I reviewed the December hearings I was struck by the way
in which television advertising has such a great potential. . .
effect on the eating habits of all Americans, particularly
children. . . We must not overlook the fact that literally
hundreds of different foods and food products are advertised
on television. We must avoid singling out one segment of
the food industry for praise or for blame when other segments
maybe engaged in the same practices. . . But let us also
understand. . . that we are here as advocates of good nutri-
tion. . . I, for instance, don't want to see my three
grandchildren beguiled by television into developing bad
nutrition habits. . .

I was disturbed at the headlines that cereal makers feel
these hearings are rigged. . . In researching back on how
these hearings came about, I find that it really goes back to
an executive session of this Committee held January 29, in
which Senator Humphrey requested that the hearings be organized
. . . he noted at the time that the Kellogg Company had an-
nounced that it was developing a series of network television
commercials aimed at promoting good nutrition along children.
Senator Humphrey thought it worthwhile to publicize this
initiative and find out what similar companies were planning
along these lines. . . " [question directed at Dr. Mayer]
". . . if we were to ban all food commercials on television . . .
would this result in better nutrition?"

Dr. Mayer (in answer) "... The question is not how much food
we will eat, but how much of what food we will eat . . . Yes,
I think children would be better off if there was no food
advertising directed at them."

Senator Percy: "Let's assume that the food industry knows,
through research that breakfast is probably the best meal to
give you a charge and a start but that many people avoid it. . .
we know there is nutrition in wheat, corn, rice. . . They
decide that the best way to entice children is through a
sweetener. Is this justified, in your judgement? What is
wrong with that? Their end goal and objective is wise and
they feel through advertising they are going to . . . help
children start the day.

. . . I like natural cereal and I have encouraged
one company, Quaker Oats, to come up with it. In fact, my
daughter used to make our own and now they have it packaged."

The remainder of Sen. Percy's speech alluded to the fact that it
might just be simpler to teach children to brush their teeth. He then
alluded to the sugar lobby "which is almost as good as the highway lobby"
when Dr. Mayer noted the extraordinary amounts of sugar children consume.
Senator Schweiker then led the questioning with regard to the effect of overconsumption of sugar. Asking Dr. Mayer for further suggestions as to how to handle advertising for your children, Dr. Mayer recommended "an outright ban to advertising directed at children under 6" if self-regulation by the industry does not work.

**Statement of Dr. Nizel, Dentist**

"...Dental cavities result from an interaction of at least three factors:

1. A caries - susceptible tooth - which is one that has not been to adequate amounts of fluoridess;

2. An accumulation of dental plaque bacteria on the tooth surface;

3. Eating or drinking sugar - rich foods such as candies, cakes, soft drinks, et cetera.

the solution to the problem [prevalence of tooth decay among children and adults] ... is the prevention and control rather than repair ... we should spend more of our intellectual energies and financial resources in finding and dealing with the causes rather than the effects of this ubiquitous disease ... So far, the weakest link in this ... prevention is the lack of nutrition education and guidance with respect to decreasing sugar - sweetened snacks and suggesting more acceptable, more nutritious alternatives."

The remainder of the statement covered evidence of the relationship between sugar and human dental caries and the "Certs Dental Disease". people who continuously 'pop' breath mints into their mouth develop demineralized areas on the gum line area of the teeth which become carious. Also presented were statistics on increasing sugar consumption in the United States. Recommendations fall into four areas-labeling, advertising, education and research:

"the FTC has already done health warning labels on cigarette packages, so they should require manufacturers to label every package of sugar-sweetened life savers ... soft drinks ... with a statement of warning."
"... Misleading statements like 'sugar isn't just good flavor, it's good food' which touts quick energy but does not describe its tooth decaying properties is not telling the whole truth about its effects on health. ... I think we should ban the advertising of sugar-sweetened products on children's television programs.

... Encouraging the teaching of nutrition in medical and dental schools is a step in the right direction. ... Better nutrition programs are needed especially at the high school and college level.

... Clinical research should be supported for testing reasonably acceptable sugar substitutes such as miraculin."

Statement of Dr. Shaw, Nutritional Biochemist:

This statement was related to dental health. Dr. Shaw also referred to "Hidden-Sugar" in baby foods and other manufactured foods and recommended that amounts of sugar be labeled. He noted the false advertising claims made by Sugar Information denoting sugar to be a good food when it is not. Dr. Shaw recommended nutrition education in medical and dental schools and at all levels of the educational experience "not only in theoretical terms, but in practical day to day experiences." He noted that the media ought to be encouraged to display more attractive and more constructive nutritional information and to "sharply curtail" advertisements of heavily sweet foods. He also recommended that manufacturers be encouraged to look for ways to reduce the amounts of sucrose.

Statement of Dr. Juan Navia, Nutritional Biochemist:

The statement of Dr. Navia was related to the relevance of nutrition to oral diseases and the consumption pattern of snack and dessert foods in the United States. Dr. Navia recommended nutrition teaching in medical and dental schools, the reevaluation of manufactured
food products containing sugar, support for research on the effects of sugar substitutes and label information.

Senator Schweiker's questions were in regard to sugar substitute and what happens when children or adults develop a sweet tooth. Dr. Nizel answered that taste is acquired or learned and can be conditioned. He noted that once a taste for foods' natural flavor is developed sugar is sickening.

Dr. Shaw, in answer to Sen. Schweiker, noted that the research and advertising personnel in one of the large food companies indicated to him that pancake syrups they make, if cut down by half the sucrose concentration would still be marketable and tasty.
March 6, 1973


Testimony of Mrs. Charren, President, and Evelyn Sarson, Executive Director, Action for Children's Television:

"...ACT is a national organization of parents and professionals working to end commercial exploitation on children's television. The role of television advertising in establishing habitual diet during childhood is a major one... A few years ago, before commercialism was in bloom, company executives were more willing to talk frankly about the purpose of their ads and how they felt about aiming ads at the "child market": '...Our primary goal is to sell products to children, not educate them' [Cleo Hovel, V.P. and Executive Creative Director, Leo Burnett Co., at the time agency for Nestle's Quik and Kellogg Cereals, in "Advertising Age," July 19, 1965]; 'When you sell a woman on a product and she goes into the store and finds your brand isn't in stock, she will probably forget about it. But when you sell a kid on your product, if he can't find it, he will throw himself on the floor, stamp his feet and cry. You can't get a reaction like that out of an adult [Jerry Rigglein, Asst. General Advertising Manager, Oscar Mayer and Co., Madison, in "Advertising Age," July 19, 1965].

...Despite the well documented problems caused by over-consumption of sugar, the food industry keeps on marketing new sweet snacks and cereals...

'Food advertising directed at children sets up conflict between the parent and the child... the majority of parents are badly informed about the harmful effects of excessive sweets. They are gullible about the advertising... and make no effort to regulate the child's sugar intake.

...Where children are concerned, counter ads or public service spots or educational program segments which provide correct nutritional information do not necessarily offset the damage done by misleading food ads... Unless there is vigorous action to prevent the continued exploitation and mis-education of the children via food ads, we can expect the growth of... the diseases that result from poor eating habits established in childhood."

(in answer to Senator McGovern) "...I think that it is so effective to advertise to children that no company is willing to give it up."
Senator Cook: "... I wonder if we were still on radio, whether we could sell these [cereals]. The answer would probably be they couldn't sell them... this particular type of product is not only the product of the manufacturer, but is also the product of the advertising agency.

The remainder of the questioning by Senator Schweiker and Cook was related to TV advertising and its effects. Senator Cook also noted his disappointment in the refusal of the food representatives to present their case before the committee.

Statement by Robert Choate; President, the Council on Children, the Media, and Advertising:

Robert Choate's statement is very similar in substance to the one presented in 1972 hearings. For this reason highlights will not be noted in this section. No questions were directed at Mr. Choate.

Statement by Tracy Weston, Director, Sten Community Law Firm, Washington, D.C. (A non-profit public interest law firm)

"... or the past several years, I have been working with public interest organizations in their attempt to broadcast health, safety, and nutritional messages over radio and television... Many of these efforts have met with frustration, censorship, and neglect by the broadcast media. Based on my experiences in negotiating with broadcast stations, and in litigation before the Federal Communications Commission, and in the courts, I have reached a tentative but depressing conclusion:

Assuming that educational groups created nutritional messages... that they might potentially change the eating habits of millions of Americans, they probably could not get them on the air or keep them there.

... Although television stations are licensed to operate 'in the public interest,' their underlying motivation is to operate in the 'commercial interest'... it tends to exclude or ignore ideas, arguments or information which might make it less attractive to advertisers and sponsors."
There are three ways to get nutritional messages on television, and none of them really have been successful [in terms of disseminating good nutrition idea]:

1. Through programming by the television industry

2. Through nutritional ads or spots produced by the advertisers, or

3. Through Public Service Advertisements (PSA) distributed by groups interested in nutrition and broadcast on a "paid" or "free" basis."

Mr. Weston concluded that nutrition be viewed as a communication problem, that information on health and nutrition can be most effectively distributed through the broadcast media and that given the commercial pressures that operate on the broadcast industry, many important nutritional messages are currently censored, or withheld from the American public. He recommended remedial legislation relevant to:

1. Requiring stations to sell commercial time to any purchasers able to pay the going rate, regardless of the content of the message.

2. Specifying minimum amounts of time that each licensee must devote to free public service messages.

Further questioning revealed that one of the reasons Broadcasters fail to respond is due to the fact that they have not felt a need to react as they don't feel the issue [nutrition] is meaningful enough.

In answer to Sen. McGovern, Robert Choate recommended that the FTC develop guidelines for ethical advertising of foods. He further noted that the broadcaster has the responsibility of providing free time to the advertising of fruit, vegetables, etc., industries of which are too fragmented to be able to afford competitive advertising.
Statement by George W. Orr, Jr., Executive Vice President (accompanied by Mr. Johnson and Dr. Bruce Semple), Medical Affairs, Consumer Products Group, Miles Laboratories, Inc., on behalf of Dr. Walter Ames Compton:

"... That there is a problem of malnutrition in our society there should be no doubt; a problem of serious consequences to our Nation - malnutrition of both deficiency and abundance... With more freedom of food choice than in any other country, Americans... poorly understand, let alone conform, to the rules of good nutrition..."

"... Miles has been concerned with the nutrition of our children for many years, and until last year was involved in advertising on children's programming of chewable vitamin supplements for children... [we] withdrew advertising from children's programming and, redirected efforts to parents."

"... For the past year we have been striving to make contributions in children's television... as contributors of materials on nutrition education for use with children's programming... They [films] have been developed as public service announcements... Miles is now in the process of making these films available at no charge to television stations across the country."

No questions were directed at the witness.
March 12

Present: Senators McGovern, Hart, Humphrey, and Schweiker;
Staff Members Schlossberg, Goetcheus and Hottell

Senator McGovern, opening statement:

"I recently saw an editorial on the issue that this committee is now exploring—"Television Advertising to Children"—which said, just as well as possible, what we are trying to accomplish with these hearings. Let me quote for a moment from this editorial which appeared in Advertising Age:

Television is a powerful communications tool. More importantly, perhaps: Television is. The challenge of TV is not found in seeking new ways to keep messages away from our children, but in striving to improve both programs and commercials. . . .

There is a lot of room for improvement in kiddie show commercial Hard sell spots aren't ameliorated by mod, stroboscopic techniques, or catchy jingles, or blatant puffery, or appeals to juvenile. Not to mention repetition.

Too many commercials beamed at children still set up false hopes and, ultimately, undermine confidence in advertising. They feed those who consider advertising a bad word, a negative value, and kids are not exempt from this. If the toy or game doesn't live up to TV-inspired expectations, who is the loser? The youngster's loss is matched, perhaps, by what the advertising community loses. What other business can beat itself out of its future so quickly, so effectively, as advertising? Conversely, what other business has the opportunity to secure its future by making itself welcome on children's TV?

We urge advertisers and agencies to learn from "Sesame Street" and "Electric Company." Try harder to produce informative and entertaining commercials, not just spots that sell. Inform the youngsters. Upgrade their lives; don't merely sell to them. Do this, and you enable your young audience to grow into more productive persons. And as the children grow and enter the adult world, they become better citizens, better consumers.

I believe that all of us here today—representatives of the people and representatives of American food industry—do have the same goals in mind. . . . I especially appreciate the decisions of the Kellogg Co. and General Mills to testify today. For years the names of these companies have stood for a genuine concern for improved nutrition in America. . . . I know that their testimony will help Congress in its effort to establish a sound national nutrition policy.

'It is becoming increasingly clear to me, as the chairman of this committee, that the scope of this nutrition education issue—the question of television advertising—is quite broad as any health issue facing our people today. . . ."
In the weeks to come we hope to reinvite the companies and advertising agencies who have not yet had an opportunity to appear, as well as other members of the food industry—the sugar industry, confectionery industry, the soft drink industry. . . . we will reschedule the representatives of the broadcasting industry and the Government agencies involved in regulating nutrition advertising.

I expect by the end of this investigation we will have a complete and thorough view of the scope and quality of nutrition advertising being directed at the American people, and the degree to which that advertising is helpful or harmful to their health."

Statement of William E. LaMotte, Executive Vice President, Kellogg Co., Battle Creek, Mich.

". . . We are here to outline what we have done and are doing to contribute toward this [nutrition education] goal . . .

. . . I want to point out that the origin of both our company and industry sprang from the desire to develop more nutritious foods. . . . I'd like to pass this package to the committee. It was printed in 1945 and even though it is almost 30 years ago, we have the back panel which says 'Always eat a good breakfast,' so we were promoting it quite a good time ago.

'Breakfast is our business and we believe that this is the area in which we can do the most good in terms of nutrition education. Kellogg Company believes it is important to provide a wide choice of cereals in tasty forms and flavors appealing to persons of all ages. . . For years our company has placed great emphasis on creating honest and tasteful advertising.

. . . Communicating nutrition information is a complex problem . . . We provide specific information discussing nutrition needs of the family. . . the importance of breakfast to good health and the contribution made by various foods at breakfast assist in understanding nutrition.

. . . For years, Kellogg's Department of Home Economics Services has developed and provided programs of informational and educational service. . . Over 6 million pieces of specially prepared material are distributed annually by the company to educators and other professionals. . . we believe advertising . . . and the potential educational impact of advertising is directly related to the true nutritional values of the products being advertised."
Statement of Dr. Gary E. Costley, Director of Nutrition, Kellogg Co.

Dr. Costley's statement provided testimony regarding the nutrient utilization and nutritional characteristics of the Kellogg Breakfast Cereals. He noted the metabolic need for carbohydrates (including sugar) especially in the early morning hours:

"I included this information because much that one reads suggests that carbohydrates, particularly simple sugars, do not contribute to good nutrition.

He noted the nutritional value of cereals:

... Now this bowl of cornflakes with 4 oz. of whole milk, vitamin D-fortified milk . . . has 8.8 percent of the protein requirement; 30 percent of vitamin A; 45.7 percent of vitamin D and 80 m.

... the statement invariably arises that cereals that are presweetened by the manufacturers are grossly inferior to cereals which are not. The fact is not true . . . the criticism of presweetened cereals generally comes from people who either have not seen the data or don't understand their significance. This basic information is printed on the side of every Kellogg cereal package:

... There has not, I repeat not, been an increase in the per capita sugar consumption in the United States . . . It (sugar) contains calories but no vitamins . . . However, it is nutritional nonsense to evaluate a food on the basis of sugar content alone.

... If one were to take literally the change that TV advertising is preconditioning children to consume larger quantities of sugar, it is reasonable to expect that as TV advertising of foods increased, a corresponding per capita sugar consumption would be noted. This has not occurred."

Statement by Howard M. List, Senior Vice President—Advertising

". . . the task of total communication involves three principle categories: (1) Nutritional Information; (2) Nutritional Education; and (3) Nutritional Motivation. Kellogg Company has been active in all these areas. . . All of our commercials to children are in strict compliance with the Provisions for Children Code of the National Association of Broadcasters. . . In addition, our own corporate procedure on approvals requires that all advertising and promotion of any kind be submitted
to our nutrition scientists and our legal authorities for thorough examination and approval. . . We are encouraging Americans to eat a good breakfast. . . We . . . try to get our product nutritional message and the better breakfast story told as part of a coordinated nutrition information effort.

. . . Kellogg Company has demonstrated its social responsiveness through advertising to all groups. Nutrition surveys, scientists and dietitians affirm that breakfast is a most important but frequently neglected meal. . . We are encouraging Americans to eat a good breakfast. When improvement of breakfast eating habits results from advertising, it can only be considered a benefit."

For the remainder of the testimony, Mr. List showed examples of advertisements from the Kellogg Nutrition Information Print Campaign making the point that a chart presenting the products' nutritional values is on all advertisements (see Example 1). He also noted that the print ad for Kellogg's Raisin Bran was given an award by the Family Health Magazine for promoting greater public understanding of nutrition. He mentioned Kellogg's Good Breakfast Campaign aimed at children and emphasizing the message 'Eat a good breakfast and a variety of foods."

Senator McGovern asked the panel to comment on Dr. Mayer's statement that children often eat the presweetened cereals without milk.

Mr. Lamotte: "... the most important point is that in this country cereal is consumed with milk. . . I really don't think it's fair to point out that a presweetened cereal, because it does have sugar, could fall into a candy category because its end consumption is just like other cereals; with milk, when consumed."

Dr. Costley:

"... Fruit Loops has the highest non-milk usage of any of our products and it is approximately 18%. One year it was 19% - 80% are consumed with milk. . . When consumed as snacks they are not consumed at breakfast . . . I would suggest that Fruit Loops as a snack are much better than a sweet roll or potato chips."
Senator McGovern questioned Dr. Costley regarding the matter of sugar consumption in the United States noting that Dr. Nizel testified that sugar consumption is increasing in the United States. Dr. Costley explained that when he [Costley] noted there had not been an increase in sugar consumption he was referring to a per capita increase. After some questioning, Dr. Costley noted that there had been an increase in sugar consumption but that such is not revealed in per capita figures as so much more sugar is put in prepared food.

Senator Schweiker: "When you put a chart on sugar-coated cereals when you show that a sugar-coated cereal of any kind has the same relative nutrient going in, that may be well and good. But high concentrations of sugar destroy the vitamins and some of the essential nutrients and minerals. So, in essence, you are also putting in the ingredient which destroys the very nutrient you are adding... This is one of our concerns about sugar."

Dr. Costley: "There is some information that sugar may relate to the biological availability of nutrients, but that data are very sketchy at the moment."

Senator Schweiker: "Some studies show that there is a direct link between the amount of sugar consumed and the body's ability to combat diabetes... I think this raises some very serious questions about how much sugar we, as a country, should be promoting."

Dr. Costley: "One of the things is our difference on whether sugar consumption per capita is actually increasing... I would be happy -- and I do not have that report from the department of Agriculture with me-- to submit to you per capita sucrose intake in the United States. I believe it started in 1950. It reports from 1950 through 1973... I think what is really germane is whether or not sugar consumption or sucrose consumption is really increasing... I would say there has been an decrease in calorie consumption in the last 10 years in the United States, and as a result there is a higher percentage of the total American diet derived from sugar... I do not think the data on sugar consumption substantiates some of the statements:"

Senator Schweiker: "...You are not arguing that we have not increased the sugar intake tremendously since 1900 are you?"

Dr. Costley: "There has been a marked increase in the sugar consumption from 1860-1870...the idea that television advertising is preconditioning people to consume more sugar...I have some serious reservation that the data support that allegation."
Senator Schweiker: "The point I am making... is that there does not seem to be too much disagreement that the sugar consumption has gone up 40% since 1949. A disease like diabetes has gone up tremendously since 1949... it can only point to a suspicion... I think Dr. Mayer pointed out that for the first time we are consuming more sugar than bread. That is all I have to say, Mr. Chairman. Thank you!"

Statement of Mercedes Bates, Vice-President, Director of Betty Crocker Kitchens, General Mills, Minneapolis, Minn.

"I have read with great interest the story in the press about this distinguished committee's interest in sugar consumption. Sugar, a carbohydrate, represents just one category of foods, and sweetened foods must be viewed in light of their relationship to other foods eaten. We know, for example, that less than 3% of a child's daily intake comes from presweetened cereals. Many other products are also sweet... cakes, frosting, ice cream... cookies. Too much of a bad thing may be bad. For instance, excessive intakes of protein, fat, cholesterol, sale and a number of other nutrients can be detrimental to health... all nutrients... are harmful if consumed in excessive quantities, and harmless... when consumed in sufficiently small quantities. ... 60% of all breakfasts are nutritionally inadequate, so we believe that fortified, presweetened cereals do have a role in providing nutrition.

... Less than 2% of all supermarket sales are represented by General Mills products... General Mills was in forefront of the movement to enrich flour in the 1940's... in 1942 Betty Crocker... broadcast a special program called 'Your Nation's Rations.'... Other Betty Crocker publications followed..." The remainder of the testimony alluded to nutrition education efforts on behalf of General Mills undertaken in 1948, and 1952, 1961, 1963 and the present.

... During the past 10 years, 133 million Wheaties packages have carried the story of health and nutrition... General Mills tries not only to tell nutrition, but to sell it, too, in new products. Breakfast squares are an interesting case in point... This product is so designed that two squares constitute a complete light meal or one quarter of the recommended daily allowance of all essential nutrients. It can be carried in the pocket and eaten anywhere, and I hope you will enjoy the samples... We're very proud of this paperback book, 'How to Feed Your Family to Keep Them Fit and Happy... No Matter What'... I hope you will realize... that General Mills dedication to good nutrition both in products and in nutrition education has been longstanding... The Chairman of the Board of General Mills, James P. McFarland, has stated that the policy of the company... 'General Mills food products will be wholesome, will follow appropriate nutritional guidelines..."
Senator McGovern: "...these hearings concentrate considerably on heavily sugared prepared food... We have testimony from dental experts about the problem that children, turning to food of this kind, have... Sir Grapefellow tastes and smells like candy. Do you really consider that a good nutritional product... and a good nutritional educational approach?"

Miss Bates: "Senator McGovern, the breakfast a child does not eat does him no good whatsoever. We do know that children eat breakfast that appeal to their tastes... To our knowledge there is no published evidence available that indicates that pre-sweetened cereals or cereals in general cause dental caries..."

Senator McGovern: "... Why do you direct the advertising of those more nutritional cereals to adults? Couldn't you sell that in skillful advertising to children? Is it really necessary to emphasize the sweetness in order to sell to children?"

Miss Bates: "We believe these presweetened cereals are good nutritious foods. They appeal to children's tastes..."

Senator McGovern quoted from a General Mills booklet emphasizing the use of sugar "sparingly." He then indicated to a General Mills ad: "Mirror, mirror on the wall whose cereal is the supersweetest of them all? Is it my Count Chocula, my supersweet cereal? Chocsweet is for Chocolate flavor." He alluded to the conflict between the two items quoted: "... The advertising on television encourages the children to use the supersweetest cereal of them all. How does that square with the booklet?"

Miss Bates: "It squares with getting children to eat breakfast..."

Senator McGovern: "... You get youngsters dependent on a highly sugared diet, and you have a campaign for people over 30 encouraging them to pass up these sweet foods. I think the advertising budget could be handled more wisely in achieving nutritional standards."

Senator Humphrey: "I am concerned about the excess sugar in breakfast foods as Senator McGovern has indicated, and I really believe the companies ought to look at it very carefully and do something about your advertising as well as about the overuse of it. I think there is going to be more and more evidence coming in that there has been excessive use of sweet cereals. This is my judgement.

... Everything I have seen here is directed toward the middle-class, well-educated Americans. It is true that some of the worst practitioners of nutrition are among the better educated people..."
...I really believe there is a difference between the adult advertising and children advertising. I think your point is well taken. ... We know a great deal about protein and the learning ability of children, the health of the brain, so to speak. I would think somewhere along the line in advertising the message ought to get through. How do we educate, how do we use the television to get to the children in the ghetto? How do we use the television to get to the under educated with a real message and the mother who has no education? There are 12 million illiterates in this country that can neither read nor write, in this great America, they are not going to be able to read that fine advertisement.

...I think the corporations of this country have got to use the television for education.

...I know you have to make a profit, and I want you to, but how about getting a message they can get from the electronic media? The print media will never get it to them. They will never read it. There is a big market out there too. You know that.

...I think it can be done. I think you can educate people how to take care of their home, how to take care of their health, through the electric media. I have been checking on it a little bit.

...I would hope that somebody would take the lead amongst the corporations in pooling a percentage of your TV ads for this kind of nutrition education rather than Kellogg doing something on their own, and General Mills doing something, and General Foods doing something else. ... We call it advertising but it is really education. I know you do a lot of it, and I appreciate it, but I think there is so much that can be done over and beyond 30 seconds.

...I don't mean to underestimate the importance of print: the boxes, the magazines. I think it is important, but we are living in an electronic age whether we like it or not, and youngsters today get most of their information, outside of their practical experience at home or on the street or in school, outside of that, from the electronic media.

Senator Schweiker: "...I think that some of the items, Protein Plus, and Total, certainly are good steps in the right direction. ...I would like to d see those cereals emphasized more..."
April 16, 1973: Hearing on Phosphate Research and Dental Decay.

Senator Schweiker, Presiding.
Present: Senators Schweiker and Percy;
Staff members Schlossberg, Matz, Goetchens, and Hottell.

Witnesses:
1. Dr. Lloyd B. Temper, Associate Commissioner of Science; accompanied by Dr. C. Ogden, Director, Division of Nutrition, Office of Sciences.
2. Dr. Clarence C. Gilken, Dental officer, Division of Surgical-Dental Drill Products.
3. Mr. Gerald F. Meyer, Director, Office of Legislative Services, Food and Drug Administration, DHEW.
4. Mr. A.S. Clausi, Vice President and Director of Corporate Research, General Foods Corporation.

These hearings, although held in conjunction with hearings on Nutrition Education, held no relevance to the issue. Testimony presented was related to dental studies. They were held because of questions raised in previous hearings as to the effect of presweetened foods on children's teeth. Phosphate—a potential tooth strengthener—was tested in various studies as a deterrent to tooth decay when added to presweetened foods such as cereals and soft drinks. As Senator Percy noted—results of the studies reported were inconclusive: "... the hearings today have shown the great difficulty in getting data that reasonable men can agree on in the field of food and nutrition."
May 25, 1973: School Nutrition Education Programs held in Pittsburg

Senator Schweiker presiding.
Present: Senator Schweiker;
Staff Member Hottell.

Witnesses

Marsh, Mrs. Gertrude, area consultant, Division of Food and nutrition Services, Pennsylvania Department of Education; accompanied by
Chegwidden, Mrs. Gwen, director, School Food Service, Franklin Regional School District, Murrysville, Pa.; with
Lyman, Mr. Steve, senior student, Franklin Regional High School, and
Murray, Miss Cary, sixth grade student, Sloan Elementary, Franklin Regional School District, Murrysville, Pa.
Schaum, Mrs. Kathleen D., registered dietitian, assistant professor of nutrition, Indiana University of Pennsylvania; and
Gray, Miss Janice, sophomore, food and nutrition major, Indiana University of Pennsylvania
Schultz, Dr. Stanley, University of Pittsburgh School of Medicine, Pittsburgh, Pa.; and
Lebman, Mr. Ronald I., third year student, Temple University School of Medicine, Philadelphia, Pa.
Thompson, Dr. Douglass S., director of community medicine, Department of Obstetrics and Gynecology, Magee-Women's Hospital, accompanied by
Kolodner, Mrs. Dorothy, nutrition consultant, Ob-Gyn Medical Care Center, Magee-Women's Hospital, Pittsburgh, Pa.; and
Theiner, Dr. Micha, assistant professor, Department of Biochemistry, School of Dental Medicine, University of Pittsburgh

Senator Schweiker, opening statement:

"... Many Americans know that a higher cholesterol diet might cause a heart attack. But how many parents know that an iron deficient diet may well cause a child to daydream in the classroom? Iron deficiency can actually cause a child not to pay attention in the class, thus seriously affecting his learning ability. ... I have introduced my own bill, the Nutritional Labeling Act of 1973, which would make nutritional labeling regulations mandatory. While labeling standards will be a good step forward, no labeling will be effective if consumers remain ignorant of basic nutritional facts. ... To successfully attack the nutritional illiteracy problem, we should, at the very least, make children aware of what is good for them to eat—and particularly, why it is good for them to eat more of certain foods than of other foods. ..."

Statement of Mrs. Marsh, area consultant, Division of Food and Nutrition Services, Penn. State Department of Education:

"... In my work with child nutrition programs I talk with administrators, teachers, nurses, and food service directors. ..."
Listening to their problems and to their suggestions leads me to the conviction that we must change the image of nutrition education today. The task is to achieve better food use by students. The main objective should be to motivate each child—to feel responsibility for choosing to eat the right food. It is not effective nutrition education to merely be able to answer with knowledge about nutrients. Nutrition education programs must concentrate on newer teaching methods. They must concentrate on modifying the behavior of the child in selecting and using food.

"Only Indiana University of Pennsylvania, has initiated a nutrition curriculum to prepare graduates. It would be helpful to have federal funding to write a proposal for nutrition education curriculum at the College level. It is necessary to take into account that teachers and parents expect to be paid if they are to attend in-service training sessions. It is also important to permit us to use funds for mass media, communication to provide for nutrition specialists at the local level.

Mr. Chegwidden:

"My observation of children has me convinced that the ones from the most affluent homes have the poorest eating habits. So we have a problem. I believe children need to learn early in life to assume responsibility for their bodies. To teach children early in life, we have to do it in schools. Food service directors like myself have problems which restrict their role in nutrition education. They have to administer a food service program that supplies one third of a child's food needs at a very low cost. Most districts are not interested in subsiding this effort. The other is the need to teach nutrition to students, faculty, administrators, and parents. The problem sometimes results from lack of professional status and lack of time. Another deterrent can be lack of resource material. It costs money and it also has to be accumulated.

Other witnesses testified on class experiments related to nutrition education in a specific school district.

Senator Schweiker asked why most administrators are indifferent to nutrition education and what can be done about it.

Mrs. Schegwidden [in answer]: "They take the attitude the parent should handle the problem of feeding children. There is also the difficulty of priorities. Most districts think nothing of subsidising athletics but want no part of nutrition education. Some of the most highly qualified
[of school food services] can't get into the classroom and are continually threatened by the school board concerning closing down the program or going to a management company for administration of it."

Senator Schweiker: "What would you say of . . . our . . . elementary and secondary schoolteachers being given nutrition education knowledge to pass on to their children?"

Mrs. Chegwidden [in answer]: "I think that teacher training schools should require nutrition courses just from the standpoint of the awareness of the individual, because these teachers have grown up in an environment of very little nutrition awareness. . . . They just don't realize that by taking a stance in favor of good nutrition, that they can have an effect on the children."

Other witnesses explained the nutrition program at Indiana University that prepares students to become nutrition specialists in schools. It was noted that only Indiana University has such a program. On the subject of nutrition education in elementary schools, problems, besides money, were noted to be the need to sell nutrition education to the faculty and administration, the need to educate teachers in nutrition so they can introduce the subject in their classes and the need to obtain adequate nutrition teaching aids.

It was pointed out that lack of interest in nutrition in schools stems from the fact that "we were not trained" in nutrition.

Mrs. Schaum [in reference to school lunch programs]: "We are indeed providing them with adequate good nutrition but they think it is just another institutional meal. . . . Much of the food goes in the waste can because we are not educating them to eat properly . . . . And also we have lots of vending machines . . . . that are causing a lot of problems."

". . . Most of the things USDA puts out are black and white and that goes over with student just like a textbook, plunk . . . . Plus it is a hassle to order from USDA."

Other witnesses testified to the need for nutrition education in medical schools and to the notion of preventive medicine through good nutrition. Cross questioning of witnesses brought about the
need for combining research in nutrition with education in nutrition as many reports relevant to the effects of nutrients are of contradicting nature:

Dr. Schulz: "... One cannot teach what one does not know and experience has shown that 'soft' information cannot be taught as effectively as 'hard' information."

According to Dr. Schulz, some of the food practices condone, for example, by the school lunch programs may not be optimal and deserve further investigation. He agreed that the "immediate payoffs" of nutrition education was in the area of obstetrics and prenatal care, but disagreed that as a Nation we should focus entirely on immediate payoffs. Dr. Thompson agreed that there exists a "very large potential pay off" in the area of obstetrics and pediatrics "up to adolescence": "... I see some, but a lesser, pay off in caring for people who have a disease... which has nutritional therapeutic implications.

The hearing was adjourned.
June 11, 1973 Broadcast Industry's Response to T.V. ads:

Senator George McGovern, presiding

Present: Senator McGovern,
Staff members Schlossberg, Stone, Matz, Goetcheus, and Hottell

Witnesses:

1. Mr. Stockton Heffrich, director, The National Association of Broadcasters

2. Mr. Alfred Schneider, vice president, American Broadcasting Companies, Inc.

3. Mr. Thomas J. Swafford, vice president, Program Practices, CBS Television Network.

4. Mr. Herminio Traviesas, vice president, Broadcast Standards, National Broadcasting Company, Inc.

Senator McGovern, opening statement:

"Over the past several years, there has been a continuing debate over the influence of television advertising on the nutritional habits and health of the Nation's children. Some critics have charged that the enormously effective medium of television has been misused to teach a generation of American children that good food has to be fun food, and fun food has to be sweet.

The critics have also charged that the end result of this lesson is a poorer state of nutritional health, dental and physical, among American children than should be the case in a nation as economically and educationally advanced as ours.

The case for the critics was probably put in its most succinct form earlier this year before this very same committee by the former White House Nutrition Adviser, Dr. Jean Mayer.

Speaking of the television advertising of food to children, Dr. Mayer said:

"Now, it is fairly obvious to any even casual television viewer that national advertising expenditures are in the reverse order to the usefulness of the foods. Group one, the fruits and vegetables and such things as fish, eggs, and meat, receive very little advertising. Advertising for potatoes, macaroni and so on is also very limited.

By contrast if you go to soft drinks, alcoholic beverages and so on, advertising is an extraordinary large item. Now I do not subscribe to a "devil theory" of advertising. I could not think that the advertising profession is made up of people who have set out to deliberately pervert the food habits of the American population; but the effect, in many
cases, is just the same. I think the reason for this is fairly plain. The foods in group one—the foods produced by farmers, basically, and which are consumed almost directly by the population—are not branded. They are produced by a very large number of farmers who don't have any advertising resources at their disposal.

By contrast, foods in group three and four are produced by a very small number of manufacturers who have very well established brands of snack foods, candy, and soft drinks, and who have enormous resources available for advertising. So that we end up with the fact that the structure of our food industry—in spite of the undeniable good will and excellent intentions of many of its leaders; which you remember Mr. Chairman, resulted in a very strong endorsement by leaders of the food industry of the concept of nutritional education at the White House Conference. In spite of all this, the structure of the industry and advertising industry end up with the whole weight of enormous resources of advertising going far toward the destruction of our food habits.

Now that is a strong statement. "Destruction of our food habits," and along with them, the foundation of good health.

The question facing us today, leaders in the legislative branch of government and in the broadcast industry, is what kind and how strong an action is required to correct this situation.

I know this for a fact this problem is a matter of concern to the broadcast industry. The presence of our four witnesses today, the head of the industry's Code Authority and the vice presidents of the three networks responsible for program standards, is evidence of the industry's good faith.

Beyond that, the publication last week of the so-called 'Winick Report' analyzing the content of children's advertising, sponsored by the industry is a sign that good faith is on its way to being translated into action.

Many people will have differing opinions regarding the finding of the Winick Report. After reviewing it, I have my own.

Briefly put, I believe the report is a long way toward supporting the concerns of the critics—the nutritionists, the dentists, the housewives—of the kind of food advertising being beamed at our children.

First, the report supports the contention that food advertising per se is being beamed at children in a massive way and as Dr. Mayer said, the least useful foods lead the list: The sweet foods, the snack foods, the sugared cereals, the soft drinks, the candies, cookies and the cakes account for 70 percent of all the advertising being directed at our children.

The good foods, milk, meat, vegetables, and fruits, seem not to exist at all in the land of children's television advertising.

Second, a child learning his nutrition lessons from television advertising would never know the meaning of sitting down to the table for a good, old fashioned balanced meal with the family.
According to the Winick study, about 90 percent of children's TV commercials never show a balanced meal, and 95 percent of the commercials never mention a balanced meal.

Is it any wonder that the snack on the move is becoming the meal of the day in America?

Third, and perhaps most startling of all is the finding of the study:

Overall, 85.2 percent of the commercials make no tie-in of good eating habits with health.

Let me repeat that:

Overall, 85.2 percent of the commercials make no tie-in of good eating habits with health.

I find that to be simply a devastating statement. Here we have the world's most powerful tool of communication and persuasion, capable of molding the habits for a lifetime of Americans.

Yet at the same time that medium is subjecting the minds of our children to hundreds of hours of nutrition miseducation, it is doing virtually nothing to provide them with the fundamentals of good nutrition and good health.

This is nothing less than a tragic waste of both television's great potential to teach and of children's potential to learn.

As the ladies from the Action for Children's Television told the committee earlier this year:

A medium which could be a powerful educational tool to inform the American public of good health and nutrition is instead a vehicle for misleading persuasion.

I commend the broadcasting industry for facing up to its critics and for commissioning this important study.

Now I think the Congress and the public want to know what action the industry is going to take to respond in a positive and meaningful way to its findings. I know that you gentlemen have been meeting on this very subject, and I would be most pleased to accept your testimony at this time.

Statement of Stockton Hellfrich, director, Authority Code, the National Association of Broadcasters:

"... the Code Authority is part of the broadcast industry's self-regulatory apparatus with responsibilities for interpretation, implementation and enforcement of program and advertising standards contained in Radio and Television Codes. ... [that] state in effect that false, misleading or deceptive advertising is unacceptable and that neither copy nor demonstration may involve a material deception as to the characteristics, performance or appearance of the product. In addition, the Television Code in respect to children calls for special consideration both as to content and placement of commercials. ... The standard includes a restriction to the effect that appeals involving matters of health. ... not be directed primarily to children.
Further, children's program hosts or primary cartoon characters are proscribed from delivering commercials within or next to programs in which they are featured. The standard also is applied even to lead-ins to commercials if the lead-ins contain sell-copy or imply endorsement of the product by program host or primary cartoon character.

This particular standard has resulted in the filing of a suit against the Code Authority by the American Federal of Television and Radio Artists.

... The Television Code is subscribed to and implemented initially by the three television networks and some 60 percent of the country's commercial broadcasters. The Radio Code is subscribed to by all four radio networks and a share of the country's commercial radio broadcasters which fluctuates around, and presently is just under 40 percent.

... The language of the Codes referenced above indicates an intent on the part of broadcasters. Implementation of that intent has grown appreciably in the past decade. In the last 4 years alone, with credit for this development both to conscientious broadcasters themselves and to their critics in and out of government, the degree of responsiveness by broadcasters through the Codes to public interest issues has deepened and quickened.

... Code Board meetings have increased in number. Numerous standing committees of the Code Board have been created including, for television, a particularly active one addressing the Code Board's concerns to program and advertising matters affecting children. Guidelines of do's and don'ts in specific categories of advertising have evolved, and continue to evolve, as the result of practices in the open marketplace wherever advertising patterns emerge which appear to comprise an area of public and broadcaster concern.

The broadcast industry's general concerns as to appropriate approaches in advertising designed for children date back over 20 years in television and even further in radio.

... the initial self-regulatory approaches were premised on caster identification with free enterprise, a belief that advertising per se is a socially accepted part of that system, and a concomitant assumption that the broadcaster could not realistically insulate viewers of any age from programs and products which find general audience acceptance and have not been the subject of challenge by, say, the Federal Communications Commission, the Federal Trade Commission, or the Food and Drug Administration.

In varying degrees in recent years, these premises have been the subject of controversy in the framework of a national agonizing over a wide range of traditional American pursuits. The broadcasting industry consists of many companies and individualized personalities who do not behave monolithically, are themselves divided as to the direction and extent of, and sometimes the need for, potential changes.
The Television Code Review Board directed the Code Authority to commission a content analysis of all television advertising designed for children excepting only toy and children's premium categories already covered by elaborately detailed guidelines.

The project was undertaken under the supervision of Dr. Charles Winick, sociologist, City University of New York. Dr. Winick's summary was presented to the Television Code Review Board on February 21, 1973.

It is the opinion of the Code Authority that this content analysis of television advertising designed for children serves as a prerequisite first step for Code-subscribing broadcasters.

Statement of Mr. Alfred Schneider, vice president, American Broadcasting Co., Inc.

"... One of my responsibilities is to help formulate and to implement the American Broadcasting Companies, Inc. policies and standards in relation to the acceptability of program and commercial material scheduled for broadcast over our facilities.

... The area of responsibility lies primarily in the review of such material so as to prevent the presentation of false, misleading or receptive advertising and includes the substantiation or documentation by an advertiser for the claims made with respect to the product where applicable.

Special concern is directed by this department to advertising of products in programs designed primarily for children. ...

... With respect to specific reference to advertising of foods, the Television Code Review Board directed the Code Authority to commission a content analysis of all television advertising designed for children. ... An extensive content analysis undertaken under the supervision of Dr. Charles Winick, sociologist, City University of New York, was presented to the Code Review Board at its session on March 25, 1973.

As a result of the meeting, the Subcommittee on Children's Advertising, was directed to review this content analysis and to seek to formulate such additional principles, guidelines including those that may be applicable with respect to food advertising as may be appropriate based upon the recommendations derived from the content analysis.

We see as our responsibility our continued efforts to participate in the formulation and establishment of such additional guidelines as experience guides us and the implementation thereof by our Standards and Practices Department in relation to the advertising content in a manner so as to present truthfully and informatively the message of the advertiser in presenting his production.

... ABC television network sees its role in broadcasting directed primarily to children not only in the area of the careful
review of advertising messages contained in such programming, but also in the development of program materials which can aid in an entertaining and informative manner in their enrichment and learning experiences.

I think of particular interest to this committee, is a recent offering on the ABC Television Network of programs called the Afterschool Special, broadcast once a month between 4:30 and 5:30 p.m., and on Wednesday, February 7, the presentation was entitled "The Incredible, Indelible, Magical, Physical, Mystery Trip," a live action and animated musical fantasy through the human body.

...It is in this manner, by the presentation of programing material that we believe we best serve the public interest in dealing with educational matters such as are the concern of this committee."

Statement of Mr. Thomas J. Swafford, vice president, Program Practices CBS Television Network:

"... The Program Practices Department is responsible for, among the other things, reviewing all commercial announcements submitted for broadcast on the CBS Television Network. ...

Usually, after the initial submission of copy by an advertising agency, a commercial is either tentatively cleared, rejected outright, or sent back to the agency for changes or substantiation of claims.

... approximately one out of four commercials is either rejected or returned. All product claims are required to be substantiated. When revised commercials are submitted, they are again reviewed, and may again be sent back for further modification or additional verification.

... commercials are reviewed if complaints are received from the public, inquiries are made by affiliated stations or other information becomes available indicating that further consideration is appropriate.

... the program Practices Department endeavors to verify claims made by advertisers as to the nutritional value of a product. ...

I would like to note a few other specific activities of CBS which may be of interest to this committee.

... CBS Television Network broadcast on Captain Kangaroo a series of 50 individual program segments, each 3½ minutes long, and produced under the auspices of the Department of Health, Education, and Welfare.
"Subjects covered in the 10-week series included emotional development, the use of energy for work and play, posture and exercise, dental care, sleep and proper nutrition. The series was repeated in the fall of last year.

... the 5 CBS-owned television stations recently created and produced 10 public service announcements aimed at children. Four of these are devoted to nutrition...

All of these announcements make use of popular local children's television performers...

This committee may also be interested to know that early this year, the CBS/Broadcast Group established a committee... to undertake a comprehensive and continuing study of the entire field of advertising to children, including, but not limited to nutrition.

In addition... CBS has discussed with the advertising council the possibility of a nutritional campaign on a national basis... 

In the whole area of children's television, including advertisements within children's programs, many criticisms have been voiced, some of which we believe have been based more on emotion than on fact.

A content analysis of commercials designed for children has now been completed by Dr. Charles Winick of the City University of New York and a copy of his study has been submitted to the committee.

Dr. Winick's study has led to the Statement of Principles adopted last Wednesday by the Television Code Board of the National Association of Broadcasters. CBS is hopeful that this study has given us a more accurate basis on which to predicate our future consideration of these issues. Implementing these measures is, and will be a challenge CBS welcomes.

Statement of Mr. Herminio Traviesas, vice president, Broadcast Standards National Broadcasting Co., Inc.

"... My responsibilities and those of my department are, essentially to review both advertising and entertainment program material carried on the NBC television network to assure that programing meets accepted standards of taste and integrity and that advertising is not false or deceptive... .

'The Broadcast Standards' function is to try to view a commercial from the point of view of the audience and to strive conscientiously to protect the viewer from being deceived... .

'The commercial, or its proposal, is assigned to a broadcast standards editor who will ordinarily have some familiarity with the background of the product... .

'This general experience as background, the editor will carefully examine any claims made by the commercial and refer to any relevant standards to the National Broadcasting Company, the National
Association of Broadcasters or the Federal Trade Commission.

He may approve the commercial at this point; he may disapprove of it in its entirety; or he may ask for substantiation of certain points or identify certain elements that do not appear to be acceptable.

While NBC expends considerable effort, time and money in this process it is an advertising medium, and is not in the position of the advertiser as a guarantor of the product. Any decision to refuse a commercial must be based upon some valid standard, self-regulatory code or legislative or regulatory rule which reflects an organized judgment that the public interest prohibits broadcasting the particular commercial.

NBC's special concern for young television viewers predates by many years the present child-as-consumer movement.

... Clearing commercials for children is no different from clearing all commercials, in that we do not decide whether there are too many cake commercials, too many car commercials, too many cosmetic commercials, so long as the products are legal and proper, and the commercials are honest.

Senator McGovern: "Mr. Hellfrich ... which of the criticisms that have been directed at the industry do you believe this report [Winick report] sustains ... also which ... does it contradict?"

Mr. Hellfrich: "... It would seem to me that one of the concerns was that we are stressing sweetness. That does not seem to be supported. ... some two-thirds of these commercials are for edibles. ... either identified one or more of the product's ingredients and gives some sort of information on the makeup of the product. ... 18% refer to vitamins and minerals. ... some 14% linked good eating habits with health. I believe it would be a concern of the committee that that appears not to be enough. ... 22.9% related products to health or balanced eating. ... maybe that is not enough.

... I think there is a need for change ... You have to give them [advertisers] some idea of what direction they are supposed to change in. ... we have disseminated the content analysis which you have referenced."

Mr. Schneider: "... by reason of this study [Winick Report] ... we have been led to add a number of principles in terms of the variables. ... with response to what the study showed."
As you have said there is a lack of expression of good eating habits. We are not manufacturers and we don't produce the product. Our responsibility ties in two aspects. One an informative aspect insofar as viewers are concerned. the second, so far as the advertiser is concerned. That we be fair and reasonable and enable them to sell their product accurately and informatively.

Quite fairly, I think in the area of candies, it is a question of not overexaggeration, not selling them to such an extent, to substitute for anything else, but there is a place and time in our eating habits for the snack, for the candy, and the appropriateness of the preservation. I think our role is to see to it that they have informative nutrient matters as well as giving the advertiser the right to sell his product.

Mr. Traviesas: "I should remind you that by experience, especially with the toy guidelines, these charges come about by a series of evolutions. We don't do it overnight."

Senator McGovern: "Do you do anything about products that have no nutritional value and make no claim of nutritional value--but carry a heavy advertising budget urging children to buy those foods?

Mr. Swafford: "If they don't make any claims that need to be substantiated, we would let them run. I am not sure how this statement of Principles will apply as we are confronted with this problem in the future."

Senator McGovern: "How do those occasional public service spot announcements compete with the advertising budgets that urge youngsters to eat more sweets?"

Mr. Swafford: "I expect in terms of numerical count, it would be heavily in favor of the commercials."

Mr. Schlossberg (Committee staff member): "doesn't the statement on the [Winick] Report, 'over 4/5 of the products make no reference to sweetness'--greatly understate the degree to which products are being advertised to children? the report itself states that about 70% of all products advertised to children are 'fun type' sugar foods. the products that emphasize sweetness the most are cereals and they are the most heavily advertised of the products."
Mr. Hellfrich: "... the assumption is being made that because 70% has to do with fun foods ... that means children are looking at 70%. That is not true... [Also] we have been told by the cereal people ... that if they do not ... sugar coat or sweeten the cereal, it simply will not be eaten... it is not sweetness that is being emphasised ... The important thing is to get them to eat cereal and try to get a good breakfast habit."

Mr. Schlossberg: "... in the cereal commercials, milk was not mentioned 40% of the time. The industry witnesses had been quite firm and strong about saying that in almost every case milk was mentioned in connection with cereals."

My understanding [from excerpts of the Winick Report] is that advertising is an extraordinarily powerful instrument; and its effects on the child's mind is exceedingly powerful. Then -- if you put that statement together with the findings in the report that children, on the average, watch television more than any other member of the family--these are quite significant responsibilities both on the part of the advertiser and the industry in terms of end result. I wonder if you feel that very strong sense of responsibility."

Mr. Hellfrich: "On any of your questions relating to Dr. Winick's Report... some of us may not be able to answer in full because of our lack of expertise. I will relay them to him... Additionally, ... I think it would be a normal function to relay those concerns to the advertisers.

Mr. Schlossberg: "What degree of responsibility for individual ads belong to--in the following sequence--the networks, the individual broadcasters, the advertising agency, and the sponsors? Who is responsible ... for what finally gets to be shown on the TV?"

Mr. Swafford: "... the broadcaster ... would be ultimately responsible.

The meeting adjourned.
July 27, 1976

Diet Related to Killer Diseases

Present: Senators McGovern, Humphrey, Percy, Dole, Bellman, Taft and Hatfield

Senator McGovern, presiding.

Witnesses:

Cooper, Dr. Theodore, Assistant Secretary for Health, Department of Health, Education, and Welfare
Gori, Dr. Gio B., Director, National Cancer Institute, Department of Health, Education, and Welfare
Hegsted, Dr. Mark, professor of nutrition, Harvard School of Public Health, Boston, Mass.
Knittle, Dr. Jerome L., director, Nutrition Laboratory, Mount Sinai Hospital, New York, N.Y.
Kritchevsky, Dr. David, Wistar Institute of Anatomy and Biology, Philadelphia, Pa.
Lee, Dr. Philip R., director, health policy program, School of Medicine, University of California, San Francisco, Calif.
McGaughy, Beverly, legislative chairman and Monaco, Grace Powers, national liaison chairman, Candlelighters
Winikoff, Dr. Beverly, assistant director for health sciences, Rockefeller Foundation, New York, N.Y.
Wogan, Dr. Gerald N., professor of toxicology, Massachusetts Institute of Technology, Cambridge, Mass.
Wynder, Dr. Ernst L., president and medical director, American Health Foundation, New York, N.Y.

Of the hearings held before the Senate Select Committee on Nutrition and Human Needs in 1976, the only hearing of relevance to nutrition education was held July 27 and 28 on Diet Related to Killer Diseases.

Although references were made to the need for nutrition education, the major thrust of the testimony was relevant to health concerns stemming from poor dietary habits. For this reason, a complete report of the hearing is not relevant to this study.
Of the witnesses testifying, all of them associated with nutrition and health professions, all had indicated, either willingly or through questioning, as to the need for nutrition education "from kindergarten to medical schools." Some were more adamant than others:

**Beverly Winikoff:** "... The problem of education for health, as it is practiced, is that it has been education in isolation, not to say oblivion, of the real pressures, expectations, and norms of society which mold and constrain individual behavior. I believe it is useless ... to educate people and then make it difficult for them to do what you have taught. Effective education must be accompanied by policies which make it easier, indeed likely, that an individual will change his or her lifestyle in accordance with the information ... We offer nutrition and health courses at the same time that we offer barrages of commercials for soft drinks, sweet snacks, high-fat foods, cigarettes and alcohol ... We put candy machines in our schools ... provide easy access to sweet soft drinks. ... There must be coordination between what people are taught and what they can do. ... Without providing an environment in which nutritional knowledge can be used, education is empty."

Dr. Cooper's testimony was relevant to research accumulated and needed in the realm of nutrition and the prevention of diseases in the department of Health, Education and Welfare. He noted that there is a greater need for communication, education and information relevant to nutrition.

Dr. Beverly Winikoff made adamant statements with regard to nutrition education and its relationship to candy machines, commercials for soft drinks and sweetened cereals, and so on.

Dr. Jerome Knittle recommended the establishment of nutritional programs that concentrate on the earliest periods of human development. No mention of nutrition education was made, although he admitted to the adverse input of T.V. advertising and the need for nutrition education.

Dr. Philip Lee recommended, among other things, nutritional education programs. He alluded to the fact that we get all our
nutrition information through commercial channels in the food for profit industry. Dr. Lee noted that it's time for a major initiative in the United States to eliminate bad eating habits.

Dr. Gori noted that "valid information presented in the proper way can persuade our society to turn to more healthy food habits."

Dr. Wynder: "... Pasteur ... said a scientist not only discovers but he also works very hard on the application of his or her discovery. How are we going to apply it? We need to apply it in part through education. You correctly put your finger on that the nutritional education needs to begin in childhood... We need to recognize that children listen principally to their peers... If we are going to overcome the ailments of our society, we have to do it not only through more research... but also by applying what we already know."

Dr. Hegsted's statement related to the fact that Americans need to eat less and that they should modify their diet. "... We should provide the American consumer with the best advice for reducing risks of these diseases..."

Dr. Kritchevsky's statement was related to the role of diet in health and disease. No mention of education was made.

Dr. Wogan's statement was related to nutrition and cancer.

Beverly McGaughy's statement was related to nutrition and cancer.

It was relevant for the questioning of witnesses that Senator McGovern and Percy and Humphrey's thoughts revolved around nutrition education and, in particular, the effects of T.V. advertising on food habits. Senator Percy, McGovern, Dole and Humphrey made statements relevant to such concerns. Senators Kennedy, Hatfield and Taft only questioned, occasionally, with regard to health.
(a) Dairy products
(b) Meat
(c) Baked goods
(d) Frozen desserts

5. Encourage the public to use egg yolks for other than human consumption.

6. Call for a review and revision of F.D.A. regulations which would promote these endeavors in a positive fashion. The F.D.A. is to be commended for its current activities on cholesterol and fat labeling.

7. Encourage the production and marketing of lower fat meat and dairy products.

8. The following programs should be among those used to implement the above proposals: school lunch, food stamp, armed forces, Veterans Administration, etc.

Health Maintenance

9. Efforts should continue to structure health care delivery so that health care teams include nutritionists. They would be responsible for counseling patients and prescribing modified diets based on existing risk factors and individual needs. Nutrition services need to be included in any National Health Insurance Plan.

10. Public awareness campaigns, such as those implemented by the American Heart Association and other public service or public interest organizations should stress the importance of early diagnosis of risk factors related to coronary heart disease.

11. Blood lipid and risk factor evaluations for coronary heart disease should become regular components for all routine physical examinations, beginning with the school age children and young adults 20-30 years of age.
National Nutrition Policy Study - 1974

The Senate Select Committee on Nutrition and Human Needs appointed several panels of experts to study the various aspects of a National Nutrition Policy and formulated relevant recommendations. The Panels were related to Famine and the World Situation; Nutrition and the International Situation; Nutrition and Special Groups; Nutrition and Food Availability; Nutrition and the Consumer; Nutrition and Health; and Nutrition and Government. The following recommendation relevant to nutrition education were made:

Nutrition and Health (June 21, 1974)
The people of the United States are highly educated in most of the practical aspects of daily living. They are not well educated in the area of nutrition.

1. Teach nutrition as a public education discipline that is included in all fundamental science and biology curricula rather than as simplistic food selection guidelines.
   Nutrition education is imperative for health professionals as well as the public. This includes the medical profession.

2. Strengthen public service communications in the area of nutrition.

3. Stimulate the use of vegetable protein foods.
   (a) The U.S.D.A. should encourage legume and grain production for human rather than animal consumption. This will improve land usage and decrease food prices.
   (b) Revise import and production quotas and pricing policies in order to market legumes and grains at the lowest possible prices.
   (c) Give the farmers incentives to produce vegetable protein foods in preference to animal protein foods.

4. Encourage the development and marketing of foodstuffs which meet the specifications of the "alternative diet". Of particular benefit would be the reduction of the total fat, the saturated fat, and the cholesterol content of the following products:
Hearings Before the Subcommittee on Nutrition, the Committee on Agriculture, Nutrition and Forestry, United States Senate

on

S. 720

and

S. 1420

May 5, 6, 1977
Nutrition and the Consumer  (June 20, 1974)

Re: Advertising

1. The Senate Select Committee on Nutrition and Human Needs establish a permanent subcommittee on advertising to oversee an integrated effort in nutrition education.

2. The private sector should join with government at all levels in a supportive mass media information and education program.

3. The content and emphasis of the above campaign relating to health, nutrition and food economics should be under the direction of consumers, consumer representatives and/or health professionals, with the assistance of food producers and marketing organizations.

4. Public Service announcements and counteradvertising should be employed as useful tools in nutrition advertising.

5. Food advertising should have strengthened educational functions. This is a task for the Federal Trade Commission, which should give high priority to a trade regulation on food advertising that will insure accurate and balanced nutrition information. This regulation should include:
   a. Direct nutritional claims should not be permitted unless the product makes a significant nutritional contribution to the diet.
   b. Advertising should be consistent with labels, and specific claims or facts represented with regard to nutrients or nutritional value or performance of a food under normal use must be completely accurate and truthful and substantially documented.
   c. Advertising for products which supply only a small portion of an individual's daily nutritional requirements should not imply benefits even in a more general way.

6. Advertising directed toward children must recognize not only their special vulnerability as a group, but also the relationships between parent and child. Advertising should support the parent's interest in teaching good nutrition habits; and advertising which negates this purpose ought to be classified as "unfair" within the meaning of the Federal Trade Commission Act. Broadcasters should be expected to fulfill an obligation to shield child audiences from repetitive and cumulative messages for snacks and other between-meal products. Products authoritatively found to be harmful or dangerous to children should not be advertised to child audiences.
Members of Subcommittee on Nutrition:

George McGovern, Chairman
Hubert H. Humphrey, Minnesota
Patrick J. Leahy, Vermont
John Melcher, Montana
Robert Dole, Kansas
Henry Bellman, Oklahoma
Jesse Helms, North Carolina

Witnesses:
1. Hon. Richard A. Gerhardt, Representative in Congress from the Third District of Missouri
2. Josephine Martin, President, American School Food Service Association, Atlanta, Georgia
3. Helen Ullrich, Executive Director, Society of Nutrition Education, Berkeley, California
4. Robert W. Grant, Jr., Chairman of the Board, Grant Grocer Co., Saginaw, Michigan
5. Hon. Carol Tucker Foreman, Asst. Secretary for Food and Consumer Services, USDA

Present: Senators McGovern, Leahy, Melcher and Dole

Senator McGovern:
"...The hearing this morning represents still another significant milestone...a legislative committee holding hearings on nutrition education with the intent to make up and report education legislation."
Description of S. 720 and S. 1420:

S. 720, introduced by Senator Humphrey, is referred to as the National Child Nutrition Information and Education Act of 1977. As such, and along with S. 1420, it represents the third attempt to legislate a National Nutrition Education Policy.

The purpose of the bill is to establish a system of grants for State Educational Agencies for the a) training of service personnel in nutrition and b) for institution nutrition education programs in schools and universities and encouraging research on nutrition education programs that utilize as a learning laboratory the existing school lunch and child nutrition programs. Appropriation written in the bill provide States with 50¢ for nutrition education for every child enrolled in schools, but not less than $75,000 per annum for any state. These funds are to be used to:

1. plan and develop nutrition education for food service and education personnel.
2. coordinate and promote nutrition education activities.
3. contract with private educational institutions to conduct nutrition education activities.
4. prepare and distribute visual aids and other informational materials.
5. establish within the National Agriculture Library of USDA a Food and Nutrition Information and Education Resources Center for assembling and disseminating materials including research results and training procedures. Appropriation for the Center are not to exceed $1,500,000.

S. 1420:

Is an amendment to the National School Lunch Act and the Child Nutrition Act of 1966 to devise and extend the Summer food program, the school breakfast program, to revise the special milk program and to authorize the Secretary to carry out a program of nutrition education as part of food service programs conducted under such Acts.

Although nutrition education is attached to other provision in the bill, it does constitute a major thrust of the bill which is popularly recognize as the nutrition education act. The provision for nutrition education, as spelled out in Section 8 of S. 1420 are exactly the same as those delineated in S. 720.

The witnesses present referred only to S. 1420 and several of them did not mention the nutrition education component.
Testimony that included mention of S. 1420 Section 8 is presented below:

Josephine Martin, President, American School Food Service Association, Atlanta, Ga.

"... I wish to concentrate on 3 major provisions of S. 1420 ... First I would like to comment on the commodity distribution program ... we hope [it] will be approved ... The commodity program, which is today often accused of waste—in many cases falsely—is the key to reducing waste in the future.

... My second major point deals with the matter of State administrative expense funds ...

... My last point deals with Section 8 of the bill which would establish a nutrition information and education program designed to implement and increase the nutritional benefits of the school lunch and child nutrition program ... ASFSA believes that nutrition education is the key to improving the nutrition knowledge and diets of the Nation's Children.

... Subsection (b) of Section 8 refers to grants to State educational agencies under the program ... also grants to agricultural and mechanical colleges ... In my view, the grants should be made to State educational agencies, with authority to contract with other agencies ... I would like to see some of these kind going to the local school system."

[in answer to McGovern] "... I wish we could see this (nutrition education) as a total program of child nutrition ... as part of the school nutrition program rather than a fragment which is not related ... If there could be a restriction of the sales of foods in competition with nutritionally adequate meals, that would certainly be a plus to this bill."

Helen Ullrich, Executive Director, Society for Nutrition Education:

"... it [is] clear that children, at an early age, are in need for a nutrition education program ... Nutrition education is more than just providing information and even the motivation, it is a total support system ... of the parents, the teachers, and the food providers.

... the bill provides for nutrition education coordinators in every state, and I would hope that we might put into that section that these coordinators be trained in nutrition and education ... Penn State ... (there)"
they are going out and training persons for what is called
the nutrition educators in leadership roles, then these
trained leaders in turn train teachers."

[in answer to Senator Dole, in reference to food machines]:
"... in some schools just foods are provided and I
think that they should not be in school."

Senator Dole: "Is that (vending machine) a good source of
revenue for the schools? Is that the reason for resisting
(the elimination of junk foods)?

Ms. Ullrich: "I think it is the biggest ... I saw a full-
page ad in Instructor magazine ... advertising that
there is a large percent profit if you provided candy for
sale. To me the incongruous fact is that the money is
used for athletic equipment ..."

Senator Dole: "... You can't legislate what people will
eat, but you can limit the choices."

Hon. Carl Tucker Foreman, Asst. Secretary for Food and
Consumer Services, USDA:
"... Finally, the administration is concerned about the
nutrition education provision of S. 1420 ... While the
Department [USDA] strongly agrees with the need for nutri-
tion and consumer education among the American public, we
are not convinced that giving $20-$30 million a year in
grants to state education departments will make an appreci-
ciable difference in this area. Nutrition education is
difficult to do well ... a study on the WIC program
found a considerable amount of nutrition education con-
ducted to be of questionable value ... 

... the administration recommends the use of a provision
that authorizes $1 million a year for pilot projects on
nutrition education in schools. The past administration
failed to bequest any money for such pilots, and no money
has ever been appropriated. The department is now plan-
ing the development of a request ... for $1 million for
FY 1978. We believe we should do some basic work in this
area before mandating that substantial sums of money be
provided to States for nutrition education activities
whose effectiveness may be largely untested."

Senator McGovern: "... I call your attention to the fact
that by slightly reforming the special milk program ... 
we are going to pick up $25 million in savings, which
could be used to cover the cost of nutrition education."
Mrs. Foreman: "... I am not persuaded that making large grants to State departments of education is a particularly good way to handle that (nutrition education) ... Right now I do not know what kinds of requirements I would write in for a nutrition education program, and whether it would be effective ..."

Senator McGovern: "... As I envision it, the purpose of this initial funding is to enable the state educational agencies to undertake a program for training food service and education personnel in the principles of good nutrition ... $1 million is a very meagre budget to launch an educational program for the whole nation, is it not?

... I remember the 1969 conference ... Their (the administration) No. 1 priority was nutrition education ... Now it is 8 years ago ... and then in 1974 ... we came up with the conclusion that the highest priority was to launch a program of nutrition education. That was 3 years ago ... You begin to wonder where we are going to move on these things."

Hearings adjourned.
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