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Title: AN ANALYSIS OF THE UNITED STATES' FAMILY

   FOOD PROGRAMS BY STATES

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Poverty has been discussed and studied for many years.

But in the last decade this issue has experienced renewed private

and political interest with numerous programs adopted to at

least partially alleviate poverty. This study focuses on two of

these programs that are aimed at providing dietary adequacy for

poor families: the food stamp and commodity distribution programs.

These two programs have been budgetarily significant;

the combined government expenditures for them is approaching

the one billion dollar mark. Concurrent with increasing expendi-

tures have been several criticisms of the programs. One of the

most severe criticisms concerns the participation gap. In 1968

only (approximately) 7 of the 25 million designated poor were

being served by the two programs. Perhaps more important, the

participation rates vary substantially from state to state, creating

inequalities in both the programs. One part of the study examines the causes of the low national participation and wide interstate variations.

Several factors were hypothesized to affect participation, and the quantifiable ones were used in multiple regression analysis to determine what factors empirically influence participation. Only one variable, the proportion of a state's population living in a food program area, was significant in explaining participation. Moreover, since 1968 the programs have been extended to all but a few areas of the country; so that this will not limit participation in the future. Thus, the study concluded the nonquantifiable hypothesized variable, state and/or local obstruction, may be (if it could be tested) a major determinant of participation rates of the various states. State and/or local obstruction occurs due to the discretionary power of each state concerning the programs.

These inequalities among states demonstrate significant distributional impacts on an interstate comparative basis. The benefits and costs to each state resulting from the programs differ significantly, but some distributional impacts were expected by design of the programs. To analyze the distributional effects that each state should receive (ignoring costs), an analysis was performed by comparing the benefits received to the benefits the state should receive based on the proportion of poor in that state

(the "ideal" distribution). The results obtained displayed significant variation from this "ideal" distribution, yielding a performance measure of the states' programs.

In conclusion, if the family food programs are to be fair and effective in the future, more uniformity must exist throughout the programs for each state. In particular, if state and/or local obstruction, which is a result of the state's discretionary power, is not checked--both programs' futures could be limited and their effectiveness below maximum.

An Analysis of the United States' Family
Food Programs by States

by

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I. INTRODUCTION

The United States has developed in a historically scant 200 years as one of the most affluent nations in the world. During this span of growth and expansion, the United States has been confronted with serious problems--one of which is "poverty". The notion that the United States has a problem of "poverty" is certainly not new nor astonishing; but in the 1960's the problem has received increased emphasis in the political process and among the citizenry. The reduction in the number of "poor" became one of the most paramount national priorities as evidenced by major new legislation to alleviate "poverty" in America.

Numerous laws, programs, committees, and organizations have been established since 1964 concerning the "poor". One major law was established in 1964 which is known as the Economic Opportunity Act of 1964. This was the legislation that enabled President Lyndon B. Johnson to wage the "war on poverty". This legislation created the Office of Economic Opportunity which sponsored such programs as the Neighborhood Youth Corps, Project Headstart, VISTA, 1/

1/ Volunteers in Service to America.

Work Training, and Community Action Programs. Since this law

several conferences and happenings have occurred such as:

(1) the National Nutrition Survey; (2) the White House Conference

on Food and Nutrition; (3) the Poor People's Campaign of 1968;

(4) the 1968 report by the National Advisory Commission on Rural

Poverty; and (5) speeches by President Nixon concerning food stamp

and welfare reforms.

Discussion of Poverty

In the following chapters the word "poor" and "poverty"[2]

will be used numerous times. Therefore, it seems necessary to

discuss such issues as the meaning of the word "poor" and the

number and composition of the "poor".

How "poverty" is defined in the United States has implications

for its magnitude and for the design of antipoverty programs. Be-

cause the definition plays such a consequential role, there develops

a need to contemplate the various methods of defining "poor". In

Ferman, Kornbluh, and Haber's words:

> There are four different criteria which should be
> used to analyze the nature and extent of poverty
> in this country: (1) the limitation of income

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[2] The words "poor" and "poverty" will appear in quotes in this
first chapter for the reason of showing these words can mean
many things. But for simplification, the quotes will be disposed
of in proceeding chapters.

resources of a single person or a family; (2) the
deficiency of community resources and income
substitutes; (3) the combination of negative
characteristics of labor force participation;
and (4) the presence of a "culture of poverty"
(4, p. 1-2).

The income criterion[3] is the most common criteria for

classifying people into a "poverty" classification. With this

criterion, a "poverty line" is established for families dependent

upon family size. This arbitrary "poverty-line" is based on

whatever the user deems necessary to provide the basic essen-

tials. Various individuals disagree on what these essentials are,

consequently one can find sundry estimates of how many "poor"

really prevail in the United States. Burton Weisbrod recognizes

this when he states:

> The CEA (Council of Economic Advisors) counts 35
> million poor people in the United States. Michael
> Harrington accepts Leon Keyserling's estimate of
> 40-50 million. Herman Miller, of the U.S. Bureau
> of Census, has stated that more than 23 million are
> poor enough to qualify for public assistance in their
> own states. One might ask: What difference does
> it make whether there are 23 million or 50 million
> poor? As Galbraith puts it, no precise measure--
> no precise definition--of poverty is needed . . .
> save as a tactic for countering the intellectual
> obstructionist . . . (28, p. 7).

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[3] Since the income criterion is the only type of measurement of
"poverty" which is readily measurable, it will be the only
criterion discussed in this thesis.

Besides these many variations of the "poverty-line", other problems exist with this criterion. One example of this is the possibility that geographic differences in costs of living occur; so a national "poverty-line" would generate an inaccurate count of the "poor". Only recently has the Social Security Administration attempted to develop a standard which would account for these differences, but still the standard[4] definition is widely used. Additionally, another difficulty in using a "poverty-line" is that the "poverty-boundary" is relative to time. This creates considerable controversy in deciding whether a "poverty-line" should shift during a specified period of years or stay the same. Differing proponents in the controversy base their decision on whether they believe the basic necessities for a person change over time (4, p. 3). Thus, even though a "poverty-line" and the corresponding count of total "poor" may yield helpful data when analyzing the "poverty" problem, its reservations must be recognized when using this type of criterion.

While the income criterion has some pitfalls in classifying who is "poor", it will be the criterion used to classify the number

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[4] By standard definition is meant the Social Security Administration's "poverty-index" of a yearly income of $3,335 for a family of four, but updated to $3,600 since 1966.

of "poor" for this study. The "poverty-index" used will be the one

established by the Social Security Administration, which has been

adopted by the U.S. Department of Agriculture. This "poverty-

index", as of March 1, 1970, based on the assumption that in order

to purchase the basic necessities to meet their needs, a family of

four must have a yearly income of $3,600 or three times the

assumed minimum food cost of $1,200. [5] This index is used to

count the number of "poor" from year to year, to define the uni-

verse of needs for social programs, to establish eligibility for

cash and other forms of assistance (17, p. 17). Using the Social

Security Administration's "poverty-line" or "poverty-index"

the Select Committee on Nutrition and Human Needs estimated

that in 1968 there were 25,856,471 "poor" in the United States [6]

(16, p. 9). Although this estimate of the number of "poor" is not

necessarily more correct than other estimates, it was selected

for use in this study because it is a standard and conservative

figure. While recognizing the inadequacy of relying too heavily

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[5] This is the cost for a family of four for the USDA's economy food
plan, which varies with family size. This economy food plan
is the least generous of the four USDA food plans (economy,
low-cost, moderate, and liberal). The USDA admits that this
economy plan allows few families to have an adequate diet
(3, p. 18-19).

[6] For a state-by-state account of the estimated number of poor
and what percentage of total state population this is, see
Appendix B.

on the "poverty-index" as a measure of the true extent of

"poverty", the author believes this is the best available estimate

of those who are unable to meet their food needs for lack of suffi-

cient income. [7]

Since most all "poverty-lines" base their justification on

such a standard of nutritional adequacy, it is necessary to explore

the extent which "hunger"[8] looms within the United States. There

have been several surveys to estimate the extent of "hunger". Two

of such surveys which have attained national recognition are the

National Nutrition Survey and the Department of Agriculture House-

hold Consumption Survey.

The National Nutrition Survey, supported by the Department

of Health, Education, and Welfare (HEW), and directed by Dr.

Arnold Schaefer of the Public Health Service is studying the extent

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[7] The low-cost diet ($1,500 for a family of 4) would raise the index
to $4,500 per year. The Social Security Administration esti-
mates that 38 million Americans would fall into "poverty". The
25 million estimated by the economy diet are considered the
"poor". The 13 million (difference between 38 and 25 million)
are considered the "near poor". For the purpose of this thesis,
these two estimates will be considered the most credible avail-
able.

[8] Much confusion has surrounded the term "hunger". For this
study the following definitions will be used (undernutrition, mal-
nutrition, and starvation are collectively used to define "hunger"):
  - Hunger: the subjective feeling that results from an individual's
            lack of food at a particular point in time.
  - Undernutrition: the consumption of an insufficient quantity of

of malnutrition in low income Census districts in 10 states. The

Survey is to be completed by 1971 (approximate), but preliminary

results of the survey from Texas, Louisiana, New York, and

Kentucky have been reported. The population tested included

12, 000 individuals, 80 percent of whom had incomes under $5, 000.

Some specific findings of this preliminary report are: seven cases

of marasmus and kwashiorkor (caloric and protein starvation)

were identified and clinically validated; one-third of the children

under six years and 15 percent of the total sample population were

found to be anemic; 3. 5 percent of children X-rayed showed evi-

dence of retarded bone growth; vitamin A was found to be at unac-

ceptable levels for 33 percent of the children under six years, and

13 percent of the population; vitamin C was found at less than

acceptable levels in 12 to 16 percent of all age groups; vitamin D

was found to be at less than acceptable levels for 3. 7 percent of all

children under six years of age (17, p. 9).

The USDA survey in 1965 tended to corroborate with the

National Nutrition Survey. Two of the most significant findings of

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food of one or more essential nutrients.
- Malnutrition: the impairment (or risk of) to mental or
physical health resulting from lack of food.
- Starvation: the state of advanced undernutrition which
causes body tissue wastage.

of this 7, 500 household survey were: (1) from 1955 to 1965 the

percentage of "good" diets fell 10 percent while the percentage of

"bad" diets rose 6 percent; and (2) as incomes rose, the adequacy

of diets also rose--while nearly two-thirds or 63 percent of the

households with incomes under $3, 000 had diets that did not meet

the allowances for one or more nutrients, only 37 percent of the

households with incomes over $10, 000 had such diets (17, p. 10).

With such nutrition surveys and many other happenings in

the last four years, "poverty" has certainly achieved new prom-

inence as a national priority. "Poverty" has existed in the U.S. for

200 years without any vigorous programs to contain it. But why has it

reached such importance in the last decade? Certainly several

events have nutured this urgency to alleviate "poverty", but a few

possible and more conspicuous reasons would be: (1) the tech-

nological revolution; (2) the Civil Rights movement; (3) the in-

creasing financial burden of welfare programs; (4) the boost in

crime and juvenile delinquency; and (5) the youth and school

crisis (7, p. xxvi). Whatever the reason or reasons for this

vocally energetic assault on "poverty", the problem of "poverty"

is high on the list of priorities of our nation's government. [9]

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[9] Since "poverty" is a national concern, a voluminous quantity
of literature has been written on the subject. See (24, p. 1-56)
for a detailed bibliography on the topic.

Solutions to the Poverty Problem

Since the plight of the impoverished has received much

national recognition, some attention must be or should be given to

the possible programs which might help ban "poverty" from this

nation. Over the past three decades, the United States has developed

numerous programs aimed at the many diverse needs of the "poor".

According to Levitan, these programs can be categorized into three

types: $\underline{10/}$

1. Programs which offer cash assistance mainly to those
   outside the labor force. These programs include Old
   Age, Survivors, and Disability Insurance; public assis-
   tance for needy persons not covered by the Social Security
   Act and financed exclusively by states and localities.

2. Programs to aid those in the work force. These pro-
   grams include training to equip the poor with skills that
   are salable in the labor market, aid to depressed areas,
   unemployment insurance, minimum wage protection, job
   creation, and work relief.

3. Programs that provide services and goods to the poor on
   the basis of need regardless of labor force status. In-
   cluded in this group of programs are child care, subsi-
   dized housing, medical services and drugs, and several
   forms of food distribution (11, p. 554).

With this wide range of programs to eliminate "poverty" and

questions as to what extent the Federal government should be

$\underline{10/}$ For a more comprehensive and philosophical discussion of
the ways the "poor" can be aided, see (12, p. 635-638).

involved, many diverse opinions can be found as to what set of programs would be the most preferred. Leon Keyserling, former Chairman of the C.E.A. and President of the Conference on Economic Progress, favors an extensive governmental role in anti-poverty efforts. His proposals are numerous, ranging from increased public assistance and unemployment benefits, comprehensive health insurance, aid for education, tax reform, and stimulating fiscal policy (10, p. 143-150). Milton Friedman, a Professor of Economics at the University of Chicago, provides a solution to the "poverty" problem which is the "negative income tax". Under this proposal, cash payments would be made to the "poor" through existing tax mechanisms. Thus, Friedman is a spokesman for individual initiative and a minimum role for government (5, p. 151-155). Moreover, Friedman argues that some of our welfare measures, such as public housing, minimum wage, and farm price supports have hindered rather than helped the recipients of these programs (6, p. 156-160).

Harry G. Johnson, also Professor of Economics at the University of Chicago, believes that to have effective programs concerning "poverty", one must divide the "poor" into categories or types and then apply an individual type of program for each category of "poor". Although, he concludes that for all of the categories the most important thing the Federal government can

do is to adopt expansionary fiscal and monetary policies which will attack unemployment (9, p. 166-170). Gunnar Myrdal, Professor of International Economics at Stockholm University, expresses the need for income transfers to the "poor", massive reforms in education and training, and strengthening of trade unions to battle "poverty" (13, p. 171-178).

The present administration, under the direction of President Nixon, is calling for an overhauling of the present bundle of welfare programs, and forming a minimum income (cash-grant) system in coordination with a revised food stamp plan. [11/] This proposed cash-grant system is a fresh approach to the problem, but the food stamp plan is not. Both family food programs (food stamps and commodity distribution) [12/] have been used in the United States as a tool to fight "hunger" as shown in Table 1. Moreover, it appears from the tone of the present administration and the U.S. Congress that these programs will become an even more important part of the arsenal to combat "poverty", especially the food stamp program. [13/]

[11/] For a further discussion of what President Nixon proposed on May 6, and August 11, 1969, concerning food stamp and welfare reform, see (18, p. 3755-3886).

[12/] A detailed discussion of both programs will be found in Chapter II.

[13/] The present movement in welfare reform is to replace all commodity distribution programs with food stamp programs (a discussion of this will follow in Chapter II).

Table 1. Peak Number of Needy Persons Receiving Food Assistance Through Direct Distribution and Food Stamp Programs and Federal Costs of These Programs, 1936-1968.

Year ending June 30	Direct distribution program		Food stamp program	
	Number of persons	Federal govt. costs	Number of persons	Federal govt. costs
	(Thousands)		(Thousands)	
1936	10, 114	$31, 792		
1937	8, 376	21, 205		
1938	8, 801	35, 375		
1939	12, 690	66, 264	51	$ 124
1940	11, 511	57, 674	1, 488	16, 414
1941	9, 774	65, 520	3, 969	82, 820
1942	5, 600	24, 173	3, 821	111, 616
1943	2, 426	12, 589	2, 600	49, 129
1944	758	1, 489		
1945	72	311		
1946	58	75		
1947	79	117		
1948	96	343		
1949	119	613		
1950	248	6, 038		

Continued

Table 1--Continued.

Year ending June 30	Direct distribution program		Food stamp program	
	Number of persons	Federal govt. costs	Number of persons	Federal govt. costs
	(Thousands)		(Thousands)	
1951	1, 225	$ 6, 812		
1952	169	533		
1953	114	360		
1954	1, 089	11, 884		
1955	3, 291	61, 948		
1956	3, 170	90, 945		
1957	3, 485	77, 918		
1958	4, 665	75, 892		
1959	5, 741	107, 001		
1960	4, 309	59, 410		
1961	6, 384	139, 988	50	381
1962	7, 443	226, 910	151	13, 153
1963	7, 019	204, 391	359	18, 640
1964	6, 135	197, 144	392	28, 644
1965	5, 842	226, 883	633	32, 505
1966	4, 781	134, 060	1, 218	64, 813
1967	3, 722	101, 053	1, 832	105, 550
1968	3, 491	123, 173	2, 489	173, 142

Source: (8, p. 25).

The Problem Outlined

Since there has been a very keen interest in "poverty", and family food programs are seemingly obtaining an even more important role in dealing with "poverty"; an increasing awareness of the facts concerning these programs will be needed in rational policy decisions. Already, there are proposals to replace commodity distribution with food stamps without knowledge of the situation.

Specifically, part of the problem stems from the states' discretionary policies concerning the family food programs. For example, eligibility rates for the food programs differ widely from state to state--no national eligibility rates have been set. Also, state and county participation is voluntary. Thus in some states 100 percent of the counties are on a program while only 15 percent of the counties in other states offer a program as of May, 1968. Some counties have "special" rules and regulations concerning who is eligible for the food programs (for example, Cass County, Indiana, does not allow participation if the family has a dog in the house). Some states do not check closely on the counties participating in a program to see if the counties are offering adequate services to eligible households. Thus, many counties are considered "token" participating agencies (17, p. 20-34).

These state discretionary policies plus the Federal structural rules and regulations have generated severe criticism from many sources. The crux of this revolves around the participation involved with food programs. [14/] The following statistics reveal lucid participation facts:

1. The average participation rate for all "poor" persons living in food stamp counties is 16 percent;

2. The average participation rate for all "poor" persons living in commodity distribution counties is 22 percent;

3. Nationally, only 0.6 percent of the counties with a food stamp program reach over 50 percent of their "poor"'

4. Nationally, only 5 percent of the counties with commodities reach over 50 percent of their "poor";

5. Combined, these two programs reach only 26 percent of the 25 million "poor" and 17 percent of the 28 million "poor" and "near poor" (17, p. 21).

In view of the importance of participation in influencing the extent to which family food programs assist in alleviating the nutritional aspects of "poverty"--it would be helpful to know more about the factors which affect participation before significant policy changes are implemented. Another important aspect of the programs is their distributional impact. At present there is

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[14/] Appendix B shows the state by state comparison of the percentage of participation (both programs) to the number of total "poor".

relatively little knowledge of this aspect of the programs. Commenting on this lack of information in connection with Federal programs in general, Bonnen says:

> The distributional impacts of both public and private
> decision making increasingly are being questioned.
> Despite our society's equity commitments, many public
> programs are administered with little attention to their
> distributional impact. It should not surprise us then
> when these programs exhibit perverse distributional
> consequences. Yet surprised we are at nearly every
> turn because we almost always fail to collect informa-
> tion on distributional impacts of these programs. We
> do not even really understand the process by which
> distributional impacts work at cross purposes, we
> waste resources and we fail to gain program objec-
> tives (10. p. 1)

The question arises as to whether economists or agricultural economists should be concerned and involved with research on the family food programs. Breimeyer recently argued in favor of more research in food programs. After lamenting the total absence of any such research among 121 Agricultural Economics doctoral dissertations in 1968, he states:

> The neglect is hard to understand. The programs have
> been in force for a generation, though not so extensively
> until recently. They have risen to near top standing in
> agricultural policy. Equally relevant, they are economic
> in nature and fall within the expertise of economists. They
> are peculiarly suited to economists' skills. For example,
> they combine several principles that are part of the content
> of most graduate programs in agricultural economics--
> principles embraced in price policy, consumption functions,
> and above all the economics of welfare (2, p. 1).

Statement of Objectives

The general objective of this study is to evaluate the family food programs of the United States and analyze relevant policy variables which (if known) could be utilized for future policy decisions, at both Federal and state level. The specific objectives are:

1. To analyze the variables that affect participation in the food programs; and

2. To estimate the distributional impact of family food programs among states.

To achieve these objectives, Chapter II presents the history, current operating procedures, and current problems of the two food programs. In Chapter III, a regression analysis is employed to determine factors influencing participation. Chapter IV provides estimates of the distributional impacts. Lastly, Chapter V summarizes this study's findings and policy implications involved.

II. BACKGROUND OF THE FAMILY
FOOD PROGRAMS

This chapter focuses on the history, operational procedures, and general accomplishments of the family food programs administered by the United States Department of Agriculture. There are essentially two different family food programs:

1. The commodity distribution program under which food items are offered directly to eligible families;

2. The food stamp program under which eligible families may purchase stamps (which can be exchanged for food) at discounted prices.

Table 2 shows the 1968, 1969, and 1970 Federal expenditures for these two programs (included is the special package program which serves pregnant mothers and infants) totaled 312.1, 543.9, and 793.5 million dollars, respectively. These amounts represented 34.8, 43.9, and 49.1 percent, respectively, of the total U.S. Government expenditures for food assistance. The school aid programs constituted a major portion of the total, accounting for 60.8, 50.2, and 42.3 percent for the respective years. Although the two family food programs are becoming more important budgetwise (note the rise in percentage with respect to total expenditures), it is not the primary reason this study will analyze them independently from the other food assistance programs. The major reason this study concerns itself with the commodity distribution and food

stamp programs is that they serve the poor exclusively. [15]

Purpose and Historical Perspective[16]

The commodity distribution program originated with the passage of the Agricultural Adjustment Act of 1935 (Section 32). [17] This program serves the two-fold objectives of: (1) removing farm commodities accumulated under the government price-support program; and (2) providing food aid to low income families. The surplus removal objective was dominant during the program's early years. Since then more emphasis had been placed on providing assistance to low income families. [18]

In the commodity distribution's early beginning, most of the participants were people affected by the sluggish economy. During

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[15] Federal food assistance to schools and institutions do not aid the poor exclusively. Although some programs (i. e., school lunches) are given financial benefactions by the Federal government when serving in poverty regions, these programs are not considered to reach the poor significantly. It has been estimated that only 14 to 16 percent of all food aid expenditures of the school and institutional aid programs actually are received by poor people (17, p. 23).

[16] This section relies heavily on an excellent National Planning Association publication by Hoover and Maddox (8, p. 1-32).

[17] For a listing of all statutory laws which pertain to Federal food programs, see U.S. Senate Agriculture and Forestry Committee hearings (15, p. 4).

Table 2. Federal Expenditures for Food Assistance, 1968-1970.

Program	Amount			Percent of combined total		
	1968	1969	1970 a/	1968	1969	1970
	(Million dollars)			(Million dollars)		
Family food assistance						
1. Food stamp	188.1	279.9	340.0	21.0	22.6	22.6
2. Commodity distribution	124.0	258.2	365.0	13.8	20.9	24.2
3. Special package (mothers, babies, children)	--	5.8	34.5	0.0	.4	2.3
4. Total	312.1	543.9	739.5	34.8	43.9	49.1
Child food assistance						
1. School lunch	433.2	451.8	469.5	48.3	36.4	31.2
2. Free/reduced lunches b/	4.8	43.6	125.8	0.6	3.5	8.3
3. School breakfast	2.1	6.5	11.5	0.2	0.5	0.7
4. School assistance (equipment and administrative expenses)	2.7	10.3	20.1	0.2	0.8	1.3
5. Special milk	103.1	104.0	--	11.5	8.4	--
6. Nonschool food programs (day care, etc.	--	7.0	11.5	0.0	0.6	0.8
7. Total	545.9	623.2	736.9	60.8	50.2	42.3

Table 2--Continued.

Program	Amount			Percent of combined total		
	1968	1969	1970 a/	1968	1969	1970
		(Million dollars)			(Million dollars)	
Other assistance						
1. Commodity distribution to institutions	40.0	62.8	53.8	4.4	5.1	3.6
2. Food and nutrition aids	--	10.0	75.6	0.0	0.8	5.0
3. Total	40.0	72.8	129.4	4.4	5.9	8.6
Combined total	898.0	1,239.9	1,506.8	100.0	100.0	100.0

a/ Reflect modifications requested from Budget Bureau, February 23, 1968, and is subject to change.

b/ Excludes free and reduced price lunches provided under the regular school lunch program.

Source: (19, p. 2587).

the late 1930's, eight to twelve million people were receiving

food--most of whom were victims of the depression (individuals

on public welfare and/or employed on emergency relief projects).

As economic conditions improved and food surpluses diminished

(during and following World War II) the program was almost

eliminated. In 1946, only 58, 000 people received food, [19] and

since then expansion has been retardate. Not until 1955 did at

least three million persons receive food through the program.

Since the late 1930's, the highest participation year occurred in

1962 when participation reached approximately 7. 44 million people.

However, after 1962, the number of participants has diminished--

mainly due to the initiation of food stamps in several areas

(shown in Figure 1).

The food stamp program has had two beginnings. The initial

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[18] The shift in emphasis was primarily caused by several studies
which indicated that demand expansion is not effectively ac-
complished by expansionary food programs (8, p. 10-11).

[19] Participation data is based on the peak month. Peak month
pertains to the month of each fiscal year that total participa-
tion is highest nationally and this varies with the programs.
In the regression analysis of Chapter III May 1968 data are
used; for Chapter IV, peak participation data are used.
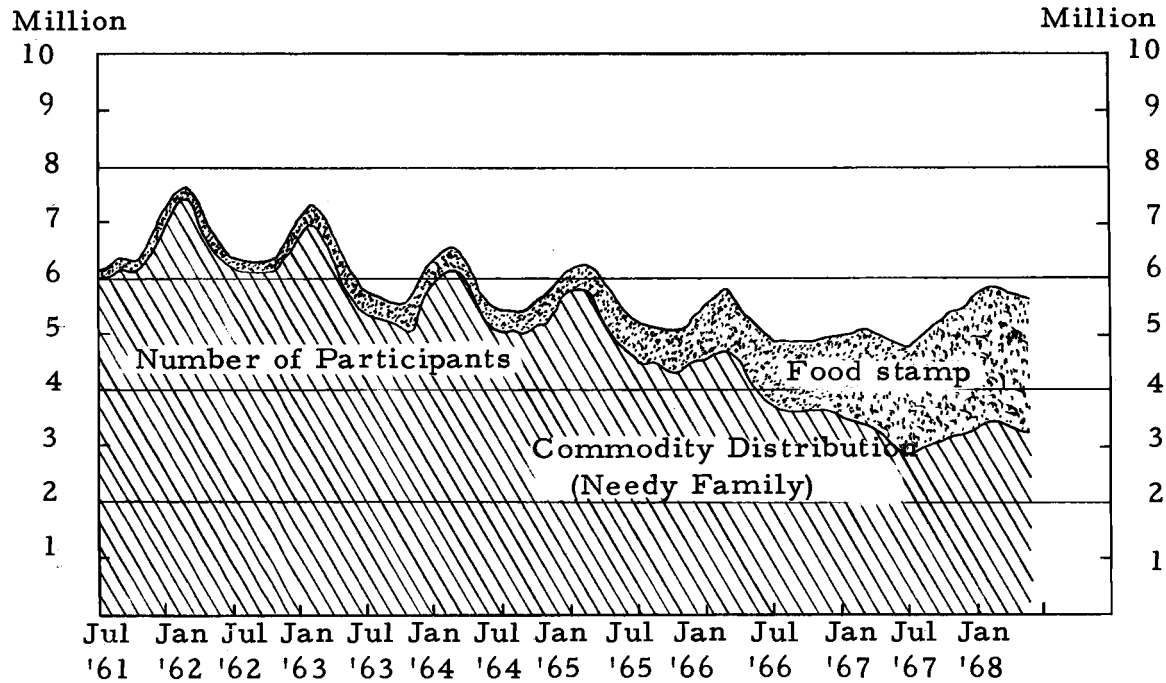
Figure 1. Number of persons participation, family food assistance
programs (July 1961-June 1968).

Source: (16, p. 25).

food stamp program operated for only five years (1939-1943). Its

objectives were (1) to raise farmers' incomes by increasing effec-

tive demand for their products; (2) to use food surpluses to improve

diets of undernourished families, and (3) to accomplish these objec-

tives through existing market channels.

A brief explanation of this early food stamp plan by Hoover

and Maddox is:

> Under the early stamp plan, which was entirely
> voluntary, relief families could purchase orange colored
> stamps at the rate of $1.00 a week for each member of
> the family as a minimum, or at the rate of $1.50 a week
> for each member of the family as a maximum. For each
> dollar's worth of orange stamps purchased, $.50 worth of
> blue (surplus) stamps were given free to the family. Both
> types of stamps could be used for food in any grocery store
> in the area in which the plan was in operation. The orange
> stamps could be used for any food usually purchased in
> grocery stores and also for such items as soap and starch,
> but could not be used for tobacco or alcoholic beverages.
> The blue stamps could be used only for those food products
> declared by the Secretary of Agriculture to be in surplus.

> This program, which was gradually expanded through 1942,
> was abolished on March 1, 1943. By that time, World War
> II food needs had significantly expanded and farm product
> prices had risen so the Department of Agriculture was no
> longer concerned with surplus removal programs but was
> centering attention on ways and means of expanding food
> output (8, p. 5, 7).

The second food stamp program, which in general is the one

presently in operation, started on May 29, 1961, in eight pilot

project areas.[20] Since this time it has emerged as a large program

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[20] For a complete discussion and listing of these pilot areas, see
U.S.D.A. bulletin (23, p. 1-38).

serving approximately one-third of the total counties (fiscal

1969. [21] This program differs from the original plan in that

the new program does not require surplus foods to be purchased

and has as its main objective feeding the undernourished rather

than surplus disposal.

Operational Proceedings of the Commodity Distribution Program [22]

This program is operated by two Federal agencies which are

the Commodity Credit Corporation (CCC) and Consumer and Mar-

keting Service (C&MS) of the Department of Agriculture. These

two agencies declare what commodities are available for donation, [23]

contract processing, and distribute them to state agencies. [24]

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[21] As noted in Figure 1 of this chapter, the food stamp program
has been gaining in participation and is to be expanded
eventually to be in effect in every county. The primary
reasons for this switch is that the food stamp program uses
established marketing channels and gives the participants
freedom of choice (of foods).

[22] This discussion is based on calendar year 1968 information.
This will not correspond exactly to current 1970 procedures,
as the program is continuously being altered. It was con-
sidered preferable to base this section on 1968 so that it would
correspond to the statistical analysis in Chapters III and IV.
For a more complete discussion of both family food programs,
see the U.S. Senate Nutrition and Human Needs Committee
hearings (20, p. 2457-2511).

[23] See Table 3 concerning a list of processed commodities available.

The state agency, in turn, declares who is eligible to receive

these processed commodities, distributes them to local agencies,

which in turn distributes them to the eligible households. Each

state and each county has the choice of participating in this

program, [25] with no government limitations (with respect to

government financing).

With this overview of how the program operates, the details

will follow.. Section 32 of Public Law 320, 75th Congress and

Section 416 of the Agriculture Act of 1949 are the laws under

which the commodity distribution program operates.

Section 32 provides the funds available, for it requires the

Department of Agriculture to receive 30 percent of the

gross receipts from duties collected under all customs charges.

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[24] The state agency is referred to here as meaning the state
welfare commission. Under each state agency will be
several local (county) welfare agencies.

[25] Although each county has the choice of participating in the
commodity distribution program, a county cannot operate
both the commodity distribution and food stamp programs
simultaneously.

Table 3. List of Commodities Available for Distribution, 1968. a/

Commodity	Commodity
Flour	Cheese
Chopped meat, canned	Raisins/prunes
Vegetables, canned	Potatoes, dehydrated
Fruit and vegetable juice	Sirup, corn
Lard/shortening	Cornmeal
Milk, evaporated	Butter, margarine
Rice	Beans, dry
Milk, nonfat dry	Poultry meat, canned
Oats, wheat (rolled)	Peas, dry
Peanut butter	Grits, corn
Egg mix	Bulgur

a/ The U.S.D.A. limits the maximum quantity of food available to each person. However, most states do not give the maximum amounts for all commodities. Many states work with home economic divisions in setting each state's schedule of commodities per person. These commodities (type and maximum amount) can vary from month to month, depending on what the U.S.D.A. determines.

Source: 16, p. 23.

Part of this 30 percent is to be used specifically for the domestic consumption of commodities outside the normal channels of commerce. Section 416 authorized (without impairment of the price-support program) the CCC to donate commodities to C&MS for distribution to deserving families;[26] the Department of Agriculture reimburses CCC.

[26] In recent years, the commodity distribution program distributed more than the commodities donated by CCC.

When the state agency submits estimates of the amounts and types of commodities needed, the Department of Agriculture ships the foods to that particular agency. The Department of Agriculture pays for processing, transportation, handling and other charges accruing up to the time of transfer of title to the state distributing agency. The Department of Agriculture receives competitive bids from firms to process, package, and ship government-owned food commodities. For the foods which are not acquired through CCC, contracts are usually awarded in the geographic area in which the particular product originates. Once the state agency accepts the shipment of food, it assumes responsibility for distributing the commodities (including financial responsibilities).

In distributing the commodities, the state prepares a "plan of operation" subject to approval of C&MS. This "plan of operation" must contain details of storage, method of distribution, and other pertinent facts. The primary responsibilities of the state are to: (1) establish eligibility standards, (2) provide certification personnel, (3) provide personnel for the purpose of reviewing participating households to ensure continuing eligibility (usually every three months a family is reviewed), and (4) assure that no recipient is discriminated against in any way or charged any fees for the commodities.

Thus, in essence, for a family to become qualified, they first must become eligible (based on the state's eligibility standards). [27] After this, the eligible family picks up at the local distribution points (at least every month[28]) the bundle of commodities offered by the state. [29] The households are in no way bound to spend their income on other food items or stipulations; they have complete sovereignty with what income they possess.

Operational Procedures of the Food Stamp Program [30]

The food stamp program is under the direction of C&MS, and like the commodity distribution program, is voluntary for each county. This program allows eligible families to use coupons or stamps (which in essence reduces the cost of food) at any certified

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[27] Each state has its own eligibility standards (maximum allowable income per month), depending upon family size. For a listing of each state's eligibility standards for a family of four, see Appendix B. Besides this income limitation, each state has maximum allowable liquid assets standards. For example, on the average, a state would allow liquid assets for a one-person household of between $500 and $1,000, and between $1,500 and $2,000 if over one in a household. If a household has over these specified amounts, they are deemed ineligible for the program. The term "liquid assets" refers to savings accounts, checking accounts, cash on hand, safety deposits, stocks and bonds, contracts of sale, mortgages, collectible claims, and excess property (that which is not used for derivation of income).

[28] By regulation, the commodities must be distributed once per month. Although there is no restriction on any agency

retail grocery store. The retailer deposits stamps in a certified bank which reimburses the retailer and is, in turn, reimbursed by the United States Treasury. With this brief description, the following will relate the specifics of the program.

One of the first questions which arises concerns the issue of who is eligible to participate in this program. Eligibility and participation in the program are on a household basis. Households in which all members are recipients of welfare assistance under Federally aided public assistance programs (such as Aid to Families with Dependent Children and other programs which aid the aged, blind and disabled) are automatically eligible.[31] For families not on public assistance, the state must establish specific eligibility standards consistent with income standards adopted for

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distributing more frequently.

[29] See Table 3.

[30] See footnote 22.

[31] However, it should be noted that existing Federal regulations do not make all public assistance recipients automatically eligible for the commodity distribution program; but in reality most recipients are eligible under local regulations (16, p. 34).

the state's Federally aided public assistance programs.[32/] In addition to these standards (as with commodity distribution program), the state must have an eligibility limitation of allowable liquid assets for each household.[33/] Both income and resource standards are subject to the approval of C&MS.

To certify who is eligible is the responsibility of the state. The state must supply the financing of the material and personnel to provide adequate documentation and verification of the household, make periodic reviews of the households to determine change in status, and issue identification cards to those deemed eligible.

After certifying the households, C&MS establishes some basis for issuing the coupons to the eligible households, according to such factors as income and family size. Two slightly different schedules have emerged from C&MS, which are the Northern and the Southern issuance tables.[34/] The two Tables (4 and 5), represent the two

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[32/] Even though the eligibility standards for non-public assistance are to be consistent with the state's standards for public assistance (PA), they differ for almost every state. In essence, two eligibility standards exist for the program--for those on PA and those who are not. The eligibility standards for non-PA food stamp is very similar to the non-PA commodity distribution standards (only three states differ--see Appendix B for details).

[33/] Liquid asset eligibility standards for food stamp are identical to those for commodity distribution--see footnote 27.

[34/] The rationale behind the two different issuance tables is that the cost of living in the South is lower.

Table 4.   Northern Food Stamp Program--Net Income Basis of
Coupon Issuance. a/

| Monthly net income | Monthly | | Total |
	Purchase	Bonus	
4-person household:			
$0 to $19.99	$ 2	$58	$60
$20 to $29.99	6	54	60
$30 to $39.99	10	52	62
$40 to $49.99	14	48	62
$50 to $59.99	20	44	64
$60 to $69.99	26	40	66
$70 to $79.99	32	38	70
$80 to $89.99	36	36	72
$90 to $99.99	40	36	76
$100 to $109.99	44	34	78
$110 to $119.99	48	34	78
$120 to $139.99	52	32	84
$140 to $159.99	56	30	86
$160 to $179.99	60	28	88
$180 to $199.99	64	26	90
$200 to $219.99	68	24	92
$220 to $239.99	72	24	96
$240 to $269.99	76	24	100
$270 to $299.99	80	24	104
$300 to $329.99	84	24	108
$330 to $359.99	88	24	112
$360 to $389.99	92	24	116
$390 to $419.99	96	24	120
$420 to $449.99	100	24	124

Source: (16, p. 18).

a/ This schedule is used in all states except Alabama, Arkansas,
Kentucky, Louisiana, Georgia, Mississippi, North Carolina,
South Carolina, Tennessee, and Virginia.

Table 5. Southern Food Stamp Program--Net Income Basis
of Coupon issuance. a/

Monthly net income	Monthly		
	Purchase	Bonus	Total
Four-person household:			
$0 to $29.99	$ 2	$56	$58
$30 to $39.999	8	50	58
$40 to $49.99	12	48	60
$50 to $59.99	18	42	60
$60 to $69.99	24	38	62
$70 to $79.99	30	34	64
$80 to $89.99	36	32	68
$90 to $109.99	40	30	70
$110 to $129.99	44	26	70
$130 to $149.99	48	24	72
$150 to $169.99	52	22	74
$170 to $189.99	56	22	78
$190 to $209.99	60	20	80
$210 to $229.99	64	18	82
$230 to $249.99	68	18	86
$250 to $279.99	72	18	90
$280 to $309.99	76	18	94
$310 to $339.99	80	18	98
$340 to $369.99	84	18	102

Source: (16, p. 18).

a/ This schedule is used in Alabama, Arkansas, Kentucky,
Louisiana, Georgia, Mississippi, North Carolina, South
Carolina, Tennessee, and Virginia.

coupon issuance tables for a four-person household as of

February 1, 1969. Thus, the payments required of the partici-

pants for the stamps is dictated by the tables. For example,

if a Northern family of four has a monthly net income ranging

from $100-$109.99, the family would pay $44 but would receive

$78 worth of stamps; thus, they would receive $34 bonus stamps

(non-taxable).

The coupon issuance tables are subject to change at any

time. Before February 1, 1969, the rate of issuance was not as

generous. To illustrate the degree of difference, before February 1,

1969, a four-person household in the North with under $20 per month

net income could receive a total of $52 worth of stamps (paying $2);

but after this date the same family could receive $58 worth of

stamps (paying $2).

C&MS is responsible for the printing of stamps (Bureau of

Engraving and Printing) in such denominations as necessary. [35/]

After the stamps are printed, they are shipped by C&MS to the

various states. Once the shipment of stamps is received by the

state, the state's responsibilities begin. [36/] The states are

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[35/] Printed in 50¢ and $2 denominations and issued to participating
families in booklets containing $2.00, $3.00, $10.00, and
$20.00 worth of coupons.

[36/] Although after the printing and shipment, the government does
endure some of the financial responsibilities. Specifically, it

required to provide for the storage and inventory of coupons,

the certification of eligible households, the issuance of the

coupons to the eligible households, [37/] and the collection of

recipients' payments.

Once the coupons are issued to an eligible household, the

family may purchase its food in any retail store approved by C&MS.

Any retail store has the right of applying for and becoming a certi-

fied store if it complies with regulations. In making the decision

as to whether a particular store is eligible, C&MS considers:

(1) the nature and extent of the food business conducted by the

applicant; (2) the volume of food stamp business to be expected;

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furnishes 50% of the following costs: (1) the direct salary
costs of the personnel used to make interviews and field in-
vestigations which are necessary to certify the eligibility
of such households (including the immediate supervisor of
such personnel); and (2) travel and related costs incurred by
such personnel in post interview field investigations of such
households.

[37/] The frequency of the issuance of coupons is to encourage
participation, but cannot be less than monthly. Although,
whenever the state or local agency decides the appropriate
times of issuance, the recipient must pay the full amount
for that period time (usually at beginning of month). Also,
the recipient cannot purchase a portion of the stamps; it is an
"all or nothing" situation.

(3) the integrity and reputation of the business; and (4) other factors deemed important by C&MS. Upon approval, an authorization card is issued to the firm and it then assumes its responsibilities. [38]

When purchasing the food, the household member[39] cannot purchase non-food items (i. e., alcoholic, tobacco, or soap products) or imported foods (i. e., bananas or coffee). If however, the household is not satisfied with the restrictions[40] of the program (such as the ones mentioned above), but hold properly issued coupons, they can elect to discontinue their participation and return the coupons for cash. However, the cash refunded will be in the same ratio of cash to coupons as was applied by the state agency when issued. [41]

Besides the recipient's and retail store's responsibilities, participating banks also have certain encumbrances. Coupons

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[38] For a listing of the retail store's responsibilities, see Appendix A.

[39] The only person who can purchase the food is the one designated head of the household.

[40] One rule not mentioned previously is the restriction of constant participation. If a household (for some reason) does not participate regularly (participating at least every three months), they can be disqualified.

[41] Although the recipient may exchange stamps for cash, it is unlawful for any recipient to sell coupons to other private parties.

submitted to the banks by the retailer must be properly endorsed. The banks cannot accept coupons from any unauthorized personnel, and may request the person submitting the coupons to show their authorization card. These coupons are held by the receiving bank until final credit has been given by the Federal Reserve Bank; after which they are forwarded by the receiving banks to the consumer food programs field office. [42/]

As the eligible households, state and/or local agencies, and retailers, the banks are subject to the laws of the land if fraudulent acts are committed. The C&MS has the authority to render any person or persons, agencies, or banks disqualified.

Having discussed the historical perspectives and operational procedures of these two family food programs, the stage is now set for an analysis of the programs. Many procedures could be imagined as to the way one could evaluate and analyze these programs. This study will analyze the programs with respect to the participation gap (Chapter III) and the distributional effects (Chapter IV). Thus, in the following two chapters, various limitations and aspects will be discussed in conjunction with a detailed statistical (regression) and economic analysis concerning the

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[42/] Some banks charge fees for handling the coupon transactions, while others do not. It is not unlawful for fees to be charged.

participational and distributional effects of the family food

programs.

III. THE PARTICIPATION GAP IN FAMILY
FOOD PROGRAMS

An estimated 10 billion dollars annually (17, p. 22) would

be required in order to bring incomes of the 25 million poor

commensurate to a point where their basic necessities could be

met. About one-third of this poverty-based income gap is attributed

to deficit expenditures for food purchases. Against this need of

$3. 3 billion for food purchases, the current food programs pro-

vided only . 67 billion dollars in fiscal 1969 and an estimated

1. 27 billion dollars in fiscal 1970 (see Table 6).

One of the major reasons family food programs (which com-

prise a major portion of the total U.S. food assistance) are not meeting

the basic needs of poor families is that a relatively small pro-

portion of poor families participate in most states.[43] The present

chapter focuses on this participation gap and analyzes the various

factors affecting it.

Discussion of the Participation Gap

Participation is one of the most important criterion to base

the limitations of these two programs--primarily because the food

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[43] This wide difference between total poor and total participating
in the family food programs will be denoted the participation
gap.

Table 6. Total Dollar Value of Food Benefits to the Poor, Fiscal
Years 1969 and 1970 (in thousands of dollars).

Program	1969	1970
Food stamp program bonuses	238, 908	610, 000
Commodity distribution for needy persons	258, 200	365, 000
Special supplemental food program	8, 817	34, 500
National school lunch program (cash grants and commodities--of regular program 16 percent of totals go to poor)	72, 288	75, 120
Free and reduced-price lunches	43, 600	125, 800
School breakfast	6, 500	11, 000
Special milk program (16 percent of $104, 000 total goes to poor)	16, 640	---
Elementary and Secondary Education Act (Title I money)	20, 000	34, 000
Non-school food program	7, 000	11, 500
Total dollar value of food assistance to the poor	671, 953	1, 266, 920

Source: (16, p. 23).

programs have to be available and acceptable to the eligible per-

sons in order for these programs to be effective. [44/] So far,

these two programs due to a combination of factors, have been

ineffective in reaching the poor of the U.S.; and in turn have

[44/] The question might arise at this point concerning the budgetary
limitations hindering the participation rates. Evidence suggests
that only to a minor extent has the availability of Federal
funds been a limiting factor in the size of the commodity dis-
tribution program. However, this has not been the case with
respect to the food stamp program. During the fiscal year

contributed to most of the political and social interest noted in Chapter I.

The two programs combined presently serve only 6.4 million (approximately 25 percent) of the currently estimated 25 million poor. Placing the participation gap in another dimension, approximately two-thirds of the 3, 128 (including independent cities and election districts) counties in the U.S. offered a program in 1969 (see Table 7). Furthermore, of the 1, 125 counties (February, 1969) participating in the commodity distribution program, only 126 counties reached over 60 percent of the poor. Likewise, the food stamp program contained only 20 of the 1, 139 counties which were reaching over 60 percent of the poor (February, 1969). Many counties reached such a small portion of their poor that many of them could be considered "token" counties.

The participation gap is further compounded when counties switch from the commodity distribution to the food stamp program. When counties switch, they typically experience a decline in participation. For example, several counties have switched to food stamps during the years 1961-1968. The participation in these

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ending June 30, 1968, for example, USDA did not receive sufficient funds to start programs in all areas for which it received acceptable applications (8, p. 8). The important point is that every county could have been on one of the programs if they had applied.

Table 7. The Percentage of Poor People Served by the Food Stamp
          and Commodity Distribution Programs by State and
          County, February, 1969.

	No. of programs	Average participation in state(%)	Number of counties reaching given percentages of the poor			
			0-19	20-39	40-59	60 plus
Total food stamp	1,139	21.6	701	322	96	20
Total commodity distribution	1,125	32.7	327	431	241	126

Source: (16, p. 30-31).

counties before transfer was 2,777,396 people. After the

transfer to food stamps, participation dropped to 1,437,330 people.

However, the participation rate recovered somewhat in these

transfer counties over time. By the termination of 1968, it

reached 1,649,313. In summary, of all the counties during

1961-1968, which made the switch to food stamps, there has been

a net decline in participation of 1,211,823--which represents a

40 percent drop.

To realize that a participation gap exists is not difficult,

but to conclude what or who causes such a gap is a very complex

matter. Thus to highlight the various program limitations that

may cause the participation gap, the following discussion[45]

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[45] The limitation of many counties not offering a food assistance
      program (which was previously mentioned) will not be dis-
      cussed in the following section.

presents some of the obstacles that a hypothetical family of four

would experience as they go through the chain of events--leading

to the actual participation.

Initially, the family must be aware of the family food pro-

grams. Many poor families may not know that food programs

exist, let alone how they could become certified. Most state and

county food program officials issue written announcements con-

cerning the programs, but this method of informing the poor does

not seem to prove successful in disseminating facts about the

programs. [46/] The chance of this hypothetical family living in

an area with an aggressive information-broadcasting system is

low. Many individuals are only informed about the programs via

friends, relatives, or neighbors who are participating. Therefore,

one would expect that the lack of an effective outreach presents one

of the first and major reasons the food programs have mediocre

participation.

Now assume this family had knowledge about the food pro-

grams. The family next needs to determine if they are eligible

to participate; and this varies markedly from state to state, [47/]

[46/] Besides the non-PA households which are not informed, many
PA families living in food stamp counties (and many commodity
distribution counties) are not knowledgeable of the fact
that they are automatically eligible by state and/or local law
to participate in the food programs.

with the Southern states having the lower allowable incomes.
Figure 2 illustrates the geographic variation in eligibility
standards. Whether or not this family will be eligible depends
critically on the particular state in which they reside. For ex-
ample, if the family lives in New York or Arizona they could earn
up to $338 or $325, respectively, per month, and be eligible
(income-wise). But if this family lives in North Carolina or
Louisiana, they could earn only up to $160 or $165 monthly and
still be eligible (income-wise).

An argument could be formulated stating that much of this
variation results from cost of living differences between states
and/or regions. The evidence suggests that differentials do
occur from region to region, but no clear and consistent patterns
emerge among or within the regions (19, p. 2171). The most recent
index of geographic differences in the cost of an adequate diet is
shown in Table 8. From this table, it appears that cost differ-
ences among regions offer only partial explanation of why the
eligibility standards should vary from state to state as much as
they do.

47/ Refer back to footnotes 32 and 33 for an explanation of the
eligibility standards.
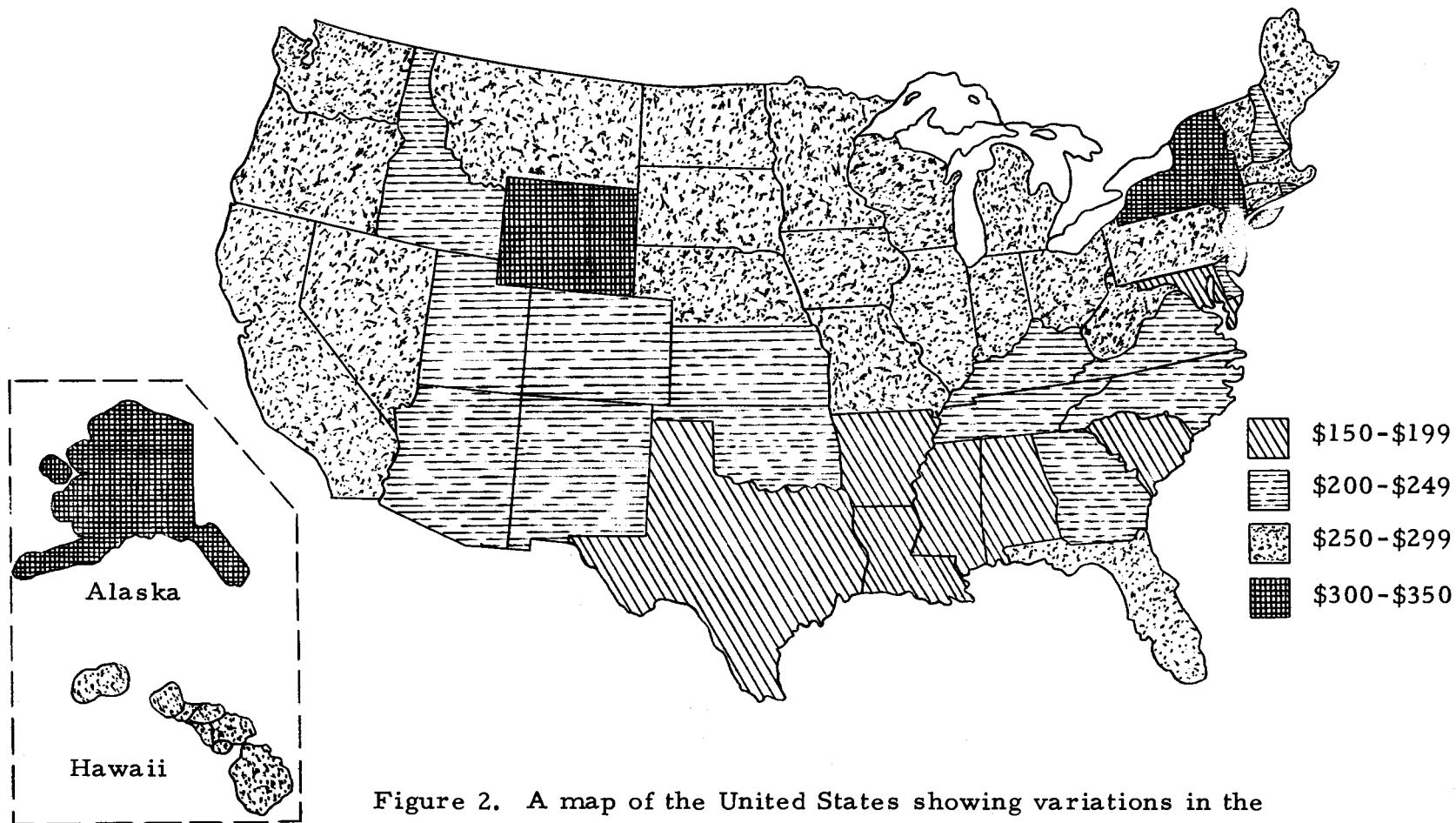
Figure 2. A map of the United States showing variations in the non-PA eligibility standards (family of four) among states, 1968.

Legend:

- $150-$199
- $200-$249
- $250-$299
- $300-$350

Alaska

Hawaii

Not only will this family be faced with varying income eligibility standards from state to state, they will also be confronted with several state and individual county policies, which could restrict them from participating.[48] For example, many counties and/or states have restrictive policies which include:

Table 8. Index of Geographic Differences in the Cost of an Adequate Diet.(1969).

U.S. average	100
North	105
Northeast	109
North Central	102
West	103
South	92

Source: (15, p. 6).

(1) providing food assistance to unemployables only; (2) providing food assistance on partial year or seasonal basis; (3) requiring residency requirement in order to qualify; (4) refusing eligibility if one or both parents are "drunks"; and (5) refusing commodities to PA families[49] (17, p. 24-25). Thus, this family could be

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[48] These policies will be later termed "local obstruction" policies.

[49] For complete discussion of local obstruction policies, see the Interim Report for the Select Committee on Nutrition and Human Needs (17, p. 23-26).

eligible in some counties of one state but not others. Furthermore, this family could move from one state to another with identical income standards, but still not be eligible in the state with local obstruction policies.

Now suppose this family has been informed of the food programs, has an income which allows them to be eligible, and does not possess any of the characteristics which might disqualify them based on local obstruction policies. The family still has to proceed through certification procedures. These procedures under both family food programs are so complicated and cumbersome that it often takes several months for a family to become certified. During the certification process many complex application forms must be completed. Case workers must investigate the accuracy of the person's answers. Applicants are forced to produce wage statements from their employers for extended periods of time. Applicants are questioned as to the credibility of their answers until verified by the case workers; and the aspirant is sometimes frightened by the large bold type on the applications which states he is subject to fine or imprisonment for false information or mistakes he might have made (17, p. 31).

Furthermore, not only is the application process very cumbersome, it tends to destroy the self-respect and dignity of the applicant. Not only is this destruction of self-dignity caused

by application procedures, but also by the methods of re-checking the family's eligibility. Every three months (for non-PA recipients) the family undergoes examination to discern continued eligibility. In summary, the certification procedures are so cumbersome that no witness before the Senate Committee on Nutrition and Human Needs has ever testified in support of the present procedure.

Supposing our family has survived the chain of events so far, they now face a basic economic question of whether the program benefits outweigh the disadvantages. This question depends on many factors which the following discussion explains.

The food stamp program[50] has been criticized because some individuals cannot afford the stamps. Even if they could afford them, the question arises concerning the inadequacy (nutritionally) of the diet (Table 9). But, in addition to these problems, the food stamp schedule discriminates against the poorest families. For example, if a family had a monthly income of $10, they would receive $60 worth of food stamps. Yet, if they had an income of $100 per month, they would receive $78 worth of stamps;

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[50] The average value of the bonus stamps to recipients in April, 1969, was $6.73 per month (16, p. 22).

Table 9.   An Evaluation of the Food Stamp Programs Adequacy.

Family income (monthly-family of 4 persons)	Purchase requirement (Standard schedule)		Total stamp value	Cost of adequate diet	Deficit in purchase power
	Amount	Percent of income			
$10	$ 2	20	$60	$100-$120	$40-$60
$50	20	40	64	100-120	36- 56
$80	36	45	72	100-120	28- 48
$100	44	44	78	100-120	22- 42
$150	56	37	86	100-120	14- 34
$200	68	34	92	100-120	8- 28
$250	76	30	100	100-120	0- 20
$300	84	28	108	100- 120	0- 12

Source: (17, p. 30)

and if they earned $300 monthly, they would receive $108 in stamps (Table 9).   Thus, if the goal of the food stamp program is to provide an adequate diet for all, then the most poor are assumed to need less food than the less poor. [51]

Also, each poor family is required to spend a higher percentage of their income for food than the non-poor population of the country; the U. S. average percentage of disposable income spent on food for the non-poor sector is approximately 17 percent.   When comparing the 17 percent to the related percentages in Table 9,

[51] Not only are the severest poor expected to eat less, they are expected to eat variable amounts--depending on the region they live in (16, p. 21).

one can see the differences.

The commodity distribution program has also been criticized on several counts concerning benefits as viewed by a poor family. A major criticism is that many states do not offer all 22 commodities which are available, [52] thus reducing the choice and/or value[53] of the commodities to the recipients. Table 10 gives the percentage of all units (counties) which did not distribute the various commodities.

Not only does the county-state level limit the commodities available, the U. S. D. A. also varies the commodities available for distribution. For example, sometimes for several months the price of eggs or cheese might be higher than usual, so U. S. D. A. could and many times does choose to cease issue of these commodities. The commodities which are in surplus (bulgur, cornmeal, flour, etc.) usually are the commodities which are not excluded by price variations, but are less preferred. This problem denotes

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[52] It is decided at the county and/or state level what commodities are needed or ordered. Thus, if the county and/or state has restrictive numbers of personnel, warehouse, space, etc., it cannot offer all the commodities available.

[53] The average value per person of the commodity distribution recipients in June, 1968, was $8.98 (16, p. 23).

Table 10. Summary of Commodities not Distributed in Commodity
Distribution Programs, December, 1968 (1,328 units).

Commodities not distributed	Percent of all units	Total
Flour	1.8	24
Chopped meat, canned	1.9	25
Vegetables, canned	2.1	28 •
Fruit and vegetable juice	3.1	41
Lard/shortening	3.8	51
Milk, evaporated	4.1	54
Rice	4.6	61
Milk, nonfat dry	4.7	63
Oats/wheat	5.2	70
Peanut butter	6.2	82
Egg Mix	6.3	84
Cheese	8.0	106
Raisins/prunes	8.2	169
Potatoes, dehydrated	10.8	144
Sirup, corn	11.2	149
Cornmeal	12.5	170
Butter/margarine	14.7	195
Beans, dry	19.6	264
Poultry meat, canned	46.0	611
Peas, dry	58.6	778
Grits, corn	59.3	788
Bulgur	77.3	1,026

Source: (16, p. 23).

the difficulty concerning the esthetic adequacy of the program.

Besides these previously mentioned factors which influence

the benefits, the family must consider other elements of the

programs which affect their attractiveness. The delivery systems

is one such element. A family participating in the food stamp

program would have to purchase all their stamps for a month at

one time (this applies to most food stamp counties). Thus, they

must not only buy all the stamps they are entitled to, but also save

(monthly) the lump sum necessary to buy their stamps. [54/] Most

of the poor families can barely meet this financial requirement.

Moreover, this family may meet temporary financial emergencies

which often cause them to forego participation for a month or more.

And if the family cannot buy stamps for a few months (usually three

months), they will be dropped from the program in most counties.

Furthermore, the family may be required to travel to a

centrally located welfare office or bank (sometimes 30-40 miles)

to purchase the stamps. If they do buy them from a bank, the

charges are sometimes high. [55/] In Los Angeles, for example,

banks charge 63¢ for each transaction (16, p. 32). To further

complicate matters, most banks have inconvenient hours for

recipients.

As with the food stamp purchases, many families parti-

cipating in the commodity distribution program live up to 150

miles away from the food distribution center. This means that

once a month the family must find transportation to the food

[54/] Some states and local agencies allow stamp purchases more
than once a month. This has been the gradual trend in some
counties.

[55/] In some cases, banks charge nothing--as in Portland, Oregon,
area.

distributing center and pack home their supply of commodities (usually weighing 30 pounds). The family must also have adequate storage facilities for this food.

An additional problem for the family is knowing how to prepare well balanced meals from the stamp purchases or commodities they receive, such as flour and bulgur. If a family does not know the rudiments of a home-economic education, the value of the programs to the recipients is bound to drop. This problem points out dramatically the need for Federal, state, and local nutrition education. [56]

In summary, this section was designed to exemplify the chain of events that one family might encounter when participating in one of the family food programs. It should be recognized that one family would probably not be faced with all the problems mentioned; but on the other hand, it should be noticed that a family would have to be a "special" family (with regard to type of program, what state and county they lived in, monthly income, etc.) before they could achieve maximum satisfaction from the programs.

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[56] It should be mentioned that previous to 1969, some states had fairly aggressive (state financed) extension programs covering nutritional education while others did not. And in 1969 and 1970 the Federal government has allotted several million dollars for nutrition aid (see Table 2) which will strengthen each state's educational programs.

Because participation is a requisite for effective programs, the remainder of this chapter will contain the formulation of a hypothesis, and the empirical analysis of participation rates.

Formulation of the Hypothesis

To perform any type of economic analysis one must formulate a hypothesis which is relevant and verifiable. By the term "hypothesis" is meant a set of tentative explanations for observed phenomena. The observed phenomena is what one desires to explain and the tentative explanations are formulated in a logical and systematic manner for the reason of scientifically analyzing and explaining the chosen phenomena.

For this study the hypothesis will be developed to explain the variation in the participation rates among states (with the participation rate defined as the ratio of participants - May 1968 - in a state to the number of poor). This ratio varies considerably from state to state. To illustrate, the states of Virginia, South Carolina, and Nebraska have ratios of 3, 6, and 9 percent, respectively, while Delaware, Oklahoma, and Mississippi, have ratios of 53, 48, and 47 percent, respectively.[57] It seems important to know why the

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[57] The participation rate is considered an efficiency criterion for the family food programs with the implicit assumptions that the higher (approaching one) the ratio, the more effective the program.

interstate variations exist. By viewing participation rates as the dependent variable, several explanations will be advanced to explain participation variations. 58/

The first explanation one would logically hypothesize concerns eligibility standards. As already noted, the eligibility standards (allowable monthly income) for a family of four vary considerably among states. For example, New York maintains a monthly allowable income of $338, but South Carolina has its allowable income set at $160 per month. Therefore one would expect New York to have a higher participation rate than South Carolina, other factors being equal. Following this argument, one would speculate that eligibility standards would affect every state's participation rate.

A second tentative explanation of participation would be the proportion of each state's population which lives in a county that offers one of the two family food programs. One would expect that the higher the proportion of a state's population living in counties offering a program, the higher the state's participation rate would be. To illustrate, Virginia had approximately 16.5 percent of its

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58/ To formulate the tentative explanations for the varying participation rates among states, the discussion concerning the limitations of participation in the previous section were used. Although it should be recognized that all the various limitations could not be used for tentative explanations because of the quantifiable problems involved.

population living in a family food program area (May, 1968); in contrast, Arizona had 100 percent of its population living in an area which offered a program (May, 1968). Thus, one would expect Arizona to have a higher participation rate than Virginia, other factors equal. Likewise, one would speculate that any state with a higher proportion of its population living in a food assistance area would have a higher participation rate than a state that did not.

A third independent variable which could affect participation is the type of program offered by the state. The reason this variable could logically be relevant is brought forth from Table 7 of this chapter and the discussion involved. This table and related discussion show that the commodity distribution program reaches more people (higher participation rate) than the food stamp program. And when counties switch from commodities to food stamp participation drops and never fully recovers, even over a period of several years. Thus on the basis of past experience, one would deduce that states which have the majority of their participants on the commodity distribution program would have a higher participation rate than the states which have a majority of participants on food stamps.

The fourth independent variable hypothesized is the ratio of poor to the population (1968) in each state. In other words, it could be visualized that as the ratio of poor to population increases,

the ratio of participants to poor would rise. The justification used

to specify this independent variable as significant is two inter-

related reasons: (1) as the ratio of poor to population increases,

there becomes increasing pressure by the Federal government and

the state's citizenry for action to alleviate the hunger problem

(the state has more awareness of the programs); and (2) as the

state's population becomes more aware of the programs and their

problems, the recipients may be less inhibited toward receiving

food assistance if everyone knows about it and several of their

friends are participating (release of social pressure, which creates

a negative attitude about people who are on the "welfare dole").

As mentioned earlier, to test any variable it must be quan-

tifiable and some variables such as state and local obstruction

cannot be quantified. Because state and local obstruction are not

easily quantifiable does not render them any less important. One

would expect that local obstruction would have a very significant

relationship to the participation rate--due to the many documented

testimonials and cases where local obstruction has had its effect.

The Regression Analysis

Now that the model is hypothesized, it is ready to be tested.

Economists have several tools for testing such models and most of

these methods are statistical in nature. In viewing the data, the

author has chosen multiple linear regression analysis.

There are several basic assumptions underlying regression analysis which are: (1) the error terms have the same variance irrespective of the value of the independent variable; (2) the error terms are uncorrelated from one observation to another; (3) the independent variables are measured without error; and (4) the error terms are normally distributed for purposes of testing hypotheses (3, p. 17).

Concurrent with these basic assumptions, regression analysis has its limitations. Since the basic purposes of regression analysis are to describe and predict, one must be careful not to go beyond the range of the independent variables in question when using the model to predict. For instance, if eligibility rates have a significant effect on the dependent variable, then one could not use eligibility standards above or below those found in the sample for predictive purposes. Also, when the model is used to describe a situation, it should be kept in mind that the implications from the results of the model refer only to the particular sample at a particular time (3, p. 6). The data of this regression analysis are for fiscal 1968, so the results cannot be used directly for drawing implications (with accuracy) for other time periods, i. e., fiscal 1969.

The model discussed narratively above can be expressed

mathematically as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon,$$

where

Y = the participation rate defined as the ratio of participants (in the family food programs) to the number of poor, for each of the 50 states,

β_i = regression coefficient which measures the influence of each X_i on participation rates,

X_1 = eligibility standard (maximum allowable income) of each state,

X_2 = the proportion of a state's population living in an area which offers a family food program,

X_3 = type of program (commodity distribution),

X_4 = type of program (food stamp)

X_5 = the proportion of the state's population which is poor,

ε = the error term.

The Data[59]

To estimate the model, cross-section data for 1968 were employed for each of the 50 states. The dependent variable, Y, was formed by adding (for each state) the participants in the food stamp and commodity distribution programs during May, 1968, [60]

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[59] All dependent and independent variables presented in this section are listed in Appendix B.

[60] Because participation varies from month to month, a single month was selected for this analysis. May, 1968, was chosen

and dividing this sum of recipients by the number of poor (1968). [61]

The first independent variable, X_1, was obtained by listing the

state's eligibility standards for a family of four which is not on

PA. [62] The second independent variable, X_2, was formed by

a somewhat cumbersome process. To arrive at the population of

each state which lived in a county (or area) which had a family

food program operating in May, 1968, every county and area within

each state that had a food program operating was noted. Then by

using 1966 Census Bureau population data, [63] the population in the

participation counties and areas was summed--yielding each state's

population which lived in area or county which was operating a

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for it was the peak month for food stamp participation in the
year 1968; and more data were available for this month than
others. However, it was not the peak month for commodity
distribution participation; its peak month was February,
1968. The selection of May, 1968, was therefore arbitrary
to some extent.

[61] These 1968 state by state estimates of the number of poor are
rough approximations. The figures were arrived at by up-
dating 1960 Census data--see (16, p. 8) for details.

[62] Using the eligibility standards from non-PA people could be
questionable when trying to measure the effects of eligibility
standards for all participants--not just non-PA participants.
But this question diminishes when one realizes PA eligibility
standards for each state are quite similar to the state's food
assistance standards. Thus, when one uses the food assistance
standards he is closely measuring its effects on total participa-
tion. For example, Oregon's PA income standards for
a family of four is $225 to $250 (depending upon ages of the
family members); its food assistance income standards is $266

program. To arrive at the proportion of each state's population which had access to a family food program, this sum was divided by the 1966 population of each state.

Type of program (commodity distribution), or X_3, is a "dummy" [64] variable in which a one represents a state with greater than or equal to 75 percent [65] of its total food assistance population (the population of a state living in an area which offers one of the two programs) residing in a commodity distribution program area; and a zero represents the states with less than 75 percent. Similarly, variable X_4 is a "dummy" variable in which a one represents the states with a greater than or equal to 75 percent of its food assistance population residing in a food stamp area; and a zero represents the states with less than 75 percent. This classification omits states with between 25 and 75

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per month (May, 1968).

[63] The latest state by state, county by county estimates of population is the 1966 Census Bureau estimates.

[64] The reason for using "dummy" variables is that some variables cannot be successfully represented in a continuous fashion.

[65] To determine what the percentages were, the populations living in food stamp and commodity distribution areas were divided by the total assistance population for that state.

percent of their population living in areas with either programs

from entering X_3 or X_4. To form X_5, or the proportion of the

state's population which is poor, the number of poor in each state

(1968) was divided by the July 1, 1968, resident population esti-

mates (Bureau of Census) for each state.

Regression Results

The regression analysis gave the following results:

$$Y = .1032 - .0003 \, X_1 + .2299 \, X_2 + .0033 \, X_3$$
(t-values) (-.71124)   (4.0753)   (.09684)

$$-.0404 \, X_4 + .0639 \, X_5; \, R^2 = .320.$$
(-1.19704)   (.22362)

The R^2, or coefficient of determination, measures the

variation explained by the independent variables. In this regres-

sion only 32 percent of the variation in the dependent variable

was explained by the hypothesized model. This relatively low R^2

suggests that the model is incompletely specified. It seems

probable that there are other variables influencing participation

in addition to the ones included and random disturbances.

Even though the model is unsatisfactory from the standpoint

of R^2, one or several variables within the model may have a

statistically significant relationship with the dependent variable.

The criterion usually employed to determine if the variables are significant is the t-test. [66/] The t-test is a two-tailed statistic which enables one to test if each of the beta coefficient (β_i) is different from some hypothesized constant (zero in this case). [67/]

Comparing [68/] the t-values with the tabular t value (with n-k-1) or 44 degrees of freedom and at the .05 significance level which is 2.016, one can observe that the only β_2 is significantly different from zero. [69/] Thus, X_2 was the only one of the five hypothesized variables which explained, significantly, the variation of the state's participation rates. One other point should be mentioned concerning the signs of the estimated coefficients $(\hat{\beta}_i)$, compared to the hypothesized signs. In this analysis each

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[66/] The test for individual coefficients can be made either in t or $t^2 = F$ form.

[67/] The hypothesis of the t test is the $\beta_1 = 0$ where i corresponds to some specific independent variable. In essence, to test $\beta_i = 0$ means that one is testing whether there is a significant relationship between Y and X_i. If the actual t-value is greater than the tabular t-value, the hypothesis is rejected.

[68/] When comparing t values, the signs of the t values are disregarded.

[69/] This was expected since the first variable to enter the step-wise regression analysis was X_2 with an R^2 of .298.

$\hat{\beta}_i$ has the hypothesized signs, except for $\hat{\beta}_1$ (eligibility standards) which has a negative sign. But since the coefficient was so small (-.0003), it can be argued that the sign contradiction becomes meaningless.

Discussion of Regression Results

The results of the regression analysis were somewhat un-expected (low R^2) and surprising because only one of the five variable coefficients was significantly (statistically) different from zero. One of the most perplexing results was that of the variable X_1, the eligibility standards. Apparently, the eligible people in states with more generous eligibility standards do not respond with increasing participation, when compared to states with less generous eligibilities.

Nevertheless, one cannot conclude that if a particular state increased (more generous) its eligibility standards, its participation rate would not increase. What this analysis shows is that among states the different eligibility standards seemed to exert no influence on the various participation rates at the time of the analysis. Likewise, one could not state that the benefit structure (coupon allotment schedule or type and amount of commodities distributed) have no effect on participation, for this was not a variable in the study--but a parameter.

Although the different allowable incomes were hypothesized to affect participation, one may speculate why they did not. [70/] Two possible reasons for eligibility standards not influencing participation rates are: (1) only the most deprived respond to the family food programs; and (2) the alternatives the eligible recipient has to choose from.

The first reason revolves around the distribution of poor within a state. States with more generous eligibility standards also tend to have higher per capita incomes. [71/] And one would expect that in these states the distribution of incomes for those classified as poor (under $3,600 annual income for a family of four) would be skewed toward the $3,600 cut-off level. Thus, such states would have a smaller proportion of their poor who are critically poor. Combining this with the probability that the benefits of participation (relative to the disadvantages) are more attractive to the critically poor, it could be hypothesized that the higher eligibility standards in more affluent states would be offset by a smaller proportion of critically poor. This explanation would appear to be particularly applicable in food stamp areas, because

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[70/] The author offers these possibilities for intellectual thinking, without empirical support for any of the reasons.

[71/] In this study the simple correlation coefficient between eligibility standards and per capita income was .49.

the ratio of free stamps to purchased stamps decreases as incomes

rise. Lack of data precluded a careful analysis of this hypothesis

in the present study.

The second possible reason, the alternatives faced by the

eligible person, concerns what other programs are available to

prospective participants. For instance, the states with higher

eligibility standards might offer public assistance programs,

where the less generous states (eligibility-wise) might not offer

a wide array of choices. Therefore, people living in states with

generous eligibility standards might choose to participate in

other programs and spend their money themselves (not on food

programs). People living in states with lower eligibilities might

not have alternative programs, forcing them to choose the family

food programs or nothing.

As previously mentioned, the variable X_2 was the only

significant variable in this particular study. It seems appropriate

to mention at this point that although X_2--the proportion of a state's

population living in an area which offered a family food program[72]

--was a useful variable, it could have been impaired by the fact

that some areas could have been designated to have a program but

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[72] This situation is diminishing in importance from a policy
standpoint because USDA plans to bring all counties on one of
the two programs by the end of 1970.

in reality were only "token" programs. By a "token" program
it is meant that the area was not offering adequate services, and
therefore should not have been counted as an area serving the poor.
This fringes on the concept of local obstruction which will be dis-
cussed shortly. The type of program (variables X_3 and X_4) did not
influence participation rates, even though the average participation
rate (nationally) for commodity distribution counties is somewhat
higher (approximately 11 percent) than food stamp counties. Also,
X_5--the proportion of the state's population regarded as poor--
had no effect on the dependent variable. Thus, even though some
states have a much higher or lower poor to population ratio than
others, the participation to poor ratio was unaffected in this study.

Up to this point, each of the independent variables has been
discussed, posing some possible explanations as to why the
hypothesized variables did not explain a major proportion of the
variation in the dependent variable. Besides these five independent
variables, one other variable--local obstruction--seemed logically
important (as mentioned previously) in explaining the variation
of the participation rates but was non-quantifiable. By local
obstruction is meant various restrictive and unusual county policies
and rules, the lethargic effort of the state and local officials to
encourage participation, and the general degrading atmosphere
associated with participation.

Considering the results of the regression analysis, one would formulate an alternative hypothesis--that the local obstruction would explain much of the variation in the participation rates. This hypothesis is based on two findings: (1) all other variables seemed relatively unimportant (except X_2) in explaining the differences in participation rates; and (2) the independent nature of the participation rates for each state. For illustrative purposes, one can compare Louisiana and Mississippi. Both states are in the same region of the United States, and both have comparable income eligibilities ($165 per month in Louisiana compared to $180 per month in Mississippi for a family of four). Louisiana and Mississippi have populations of 3,710,000 and 2,349,000, respectively; with 859,208 and 781,946 poor in each respective state. Louisiana has 1,305,000 of its 1,625,400 population living in a food assistance area on food stamps, while Mississippi has 1,503,400 of its 2,339,000 population living in a food assistance area of food stamps. Yet, Louisiana's participation rate is 15 percent, while Mississippi's participation rate if 47 percent.

It should be noted that after estimating this model, three additional variables were also tested. These three variables were rurality, regionality (Northeast, North Central, South, West), and per capita income. When the independent variable (participation/poor) was regressed on these three variables the results were insignificant

$(R^2 = .08)$. Therefore, it was concluded that these variables were not related to participation rates.

To conclude, local obstruction is essentially a negative aspect of program administration; and under current procedures is at the discretion of state and local governmental units. There is, however, a potentially positive aspect to this problem. The potential for improving participation is immense if local obstruction is indeed the major determinant. By providing more information about programs to prospective participants, and providing more participant-oriented administration, it would be possible to substantially increase participation in the family food programs. Several counties in Oregon have experimented with this type of approach and the results appear to support the proposition that participation can be improved by a more effective over-all delivery system.

IV. THE DISTRIBUTIONAL EFFECTS OF THE
FAMILY FOOD PROGRAMS

There are several ways one can analyze the distributional

effects of a program(s), but for this study it is appropriate to

concentrate on interstate money transfers. These distributional

effects are not necessarily undesirable, for one of the major

purposes of the program is to accomplish this. To determine

interstate distributional effects, several methods could be em-

ployed. However, they all revolve around two concepts which

are the benefits and cost (to each state) involved with the family

food programs. Thus, for this study the distributional effects

associated with the family food programs will be defined as the

difference between the benefits (B) and costs (C) (although at a later

stage other effects--not those of (B-C)--will be termed

distributional effects in a more general fashion).

The Benefits

The way in which benefits will be defined in this study is

simply the money value the state received from the Federal

government for the purpose of operating the two family food pro-

grams within that state. This includes the value of the commodities

the government supplies to the participants of each state (based on

retail value of the packaged foods) plus the value of the bonus

stamps issued to the recipients of that state. [73]/

One should notice this definition of benefits is somewhat

restrictive in the sense that it neglects all secondary benefits

which could accrue from the Federal money flowing to each state.

For example, the state not only receives monetary aid from the

government which increases dietary adequacy, improves health,

and raises labor productivity of the recipients, but this aid con-

tributes other benefits which are not involved with those derived

from increased food consumption.

Two possible benefits are the multiplier effects and

reduced public assistance (PA) numbers. Assuming that

if government did not have family food programs, it would

utilize this money to retire public debt, the food programs create

multiplier effects because of the incremental expenditures

associated with the programs. Moreover, there is a possibility

that the multiplier effects of the two programs differ. The

participants' incomes under both programs are spent locally

(assume no savings), but food stamp participants are required to

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73/ These amounts do not include the money given to each state for
the purposes of paying part of the administrative costs
mentioned in Chapter II.

spend their previous food expenditures and bonus values specifically on food. The commodity distribution program does not place this restriction on the previous (before participation) food expenditures of the recipients. Assuming that part of the previous incomes of commodity distribution participants are released for other goods and the multiplier of the food sector differs from the multipliers of other sectors (sectors in which the commodity distribution participants increase expenditures), the multiplier effects would differ with the two programs.

Another difference in the multiplier effects stems from the fact that food stamp participants buy all their food at a local retail store; whereas commodity distribution participants consume commodities which the government has purchased and processed in the particular region in which the commodity in question is produced. Thus, if retail stores acquire their foods in a different manner than the government acquires commodities, geographic multiplier differences could occur. For example, if most local retailers purchase their foods locally, then the food stamp program would tend to generate more local multiplier effects, while the commodity distribution program would tend to generate some local but also some regional effects; wherever the commodities are purchased and processed.

Besides these multiplier effects, the two programs could

have a substitution effect on the various public assistance (PA)

programs and therefore reduce the PA recipients of each state.

This result has not been researched thoroughly, but one can

theorize why it could happen. Under the assumption that some

people prefer not to be on PA or any other type of aid program;

and if alternatives are available, they might choose the family

food programs over PA, because they do not consider the food

programs pure "gifts".[74/] If food programs were not available

they may not have any practical alternatives but to participate on

PA.

The Costs

For the purpose of this study each state's costs will be

defined as the proportion of the total Federal expenditures for the

two family food programs the state supports by its Federal income

tax contributions. The costs for each state are found by multi-

plying the total government expenditures for the food stamp and

commodity distribution programs by the fraction of the total U.S.

income tax bill paid by the state. For example, if a state pays

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[74/] Under the food stamp program, recipients have to pay a portion
of the stamp value, and under the commodity distribution
program recipients consider the commodities they receive as
surplus foods, so neither program carries the stigma of being
pure "gifts".

five percent of the total U.S. tax bill, then its calculated cost is

five percent of the total Federal family food program expenditures. [75/]

The Distributional Effects

Obviously, the determination of those distributional effects

(B-C) becomes a somewhat complex matter. Both B and C can be

influenced by several possible factors which are particular to each

state. For example, the primary factors which influence B are

the proportion of the state's population designated poor and the

participation rate (both of which differ from state to state). Also,

C will differ from state to state depending upon the income of that

state.

To illustrate, two states with everything else equal (such as

the proportion of the population poor and other factors discussed

in Chapter III which affect participation rates), except tax payments

to the Federal government, will experience different distributional

effects. Also, two states, with everything equal except the

proportion of the states' population which is poor, would experience

a redistribution effect. Besides the redistributional effects

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[75/] State administrative costs are ignored in this case because these
costs represent no distributional effects among states.

of differing taxes and proportion of poor, a redistribution of income

would occur due to participation rate differences--since the more

participants a state has (considering a fixed number of poor) the

more federal benefits it would receive. Therefore, several factors

influence the benefits and costs and in turn the (B-C) values which

estimate the distributional effects. A positive sign for this statistic

(B-C) denotes an income transfer to that state; conversely, a

negative sign indicates a negative transfer.

Having defined, discussed, and estimated the interstate

distributional effects associated with the family food programs,

several other statistics may be calculated. These statistics,

including a measure of the income-distribution impact among states,

are given in Table 11 on pages 79 and 80.

For example, one statistic, which can be formed by dividing

the benefits for each state by the number of poor within that state,

is the benefits per poor person. One would expect this statistic

to vary from state to state since benefits and the number of poor

vary considerably.

Likewise, the benefits can be divided by the population,

giving the benefits per capita for each state. This statistic would

also vary, since benefits and population vary.

One can also divide the benefits of each state by the number

of participants to obtain benefits per participant. [76/] This calcu-

lation would also logically deviate from state to state, since the

food stamp program yields higher benefits to lower income

families. And some states have a higher proportion of very low

income families participating than others. Also, the commodity

distribution program allows states to order partial lists of

commodities, therefore lessening the total value of the commodities

received by the recipients in states not offering the full list of

commodities.

Furthermore, the measure of the distributional impacts

(B-C) can be divided by the population of each state, giving the net

benefits per capita. These net benefits can be positive or negative,

depending upon the sign of (B-C).

The benefits can be divided by the costs providing a benefit-

cost ratio. Any value of this ratio of $0 < \frac{B}{C} < 1$ would designate

a state which has a net loss, and any value of $1 < \frac{B}{C} < \infty$ represents

a state with a net gain. For instance, a B/C ratio of $5 means

that for every $1 of cost (as determined by taxes), the state re-

ceives $5 in benefits, or a positive $4 gain per dollar of costs.

Another way to view a state's benefits in a more normative

[76/] This statistic yields the benefits per year a single participant
would receive. This will be biased downward because peak
participations were used for both programs.

context is by analyzing how each state's benefits compare to the

proportion of the Federal expenditures which each state should

receive based on its poor (relative to the number of U.S. poor).

In other words, compare the state's benefits to the benefits it

should receive according to the size of its poor population. A

measure of normative benefits (B*) can be obtained by multiplying

the proportion of the U.S. poor residing in that particular state by

the total Federal expenditures for the programs. This figure (B*)

was then subtracted from the actual benefits (B) received, to

acquire some idea of the effects of the varying participation rates

and benefits per participant among states.

To clarify, previously the distributional effects of the family

food programs were defined as (B-C) values. It was noted that

these effects were expected by the design of the programs, but it

was not stated that the estimated differences in the (B-C) values

were the distributional effects that <u>should</u> occur. Thus, what

the statistic (B-B*), the subsequent statistic (B-B*)/B* take into

account are the distributional effects that <u>should</u> occur if the

programs operated to achieve the objective of providing benefits

based on the number of poor in each state. In essence, these two

statistics disregard the influences of taxes and adjust for the effects

of the number of poor. This results in a measure of the effects of

interstate differences in participation rates and benefits per

participant. They measure the effectiveness of a state's family food programs caused by the discretionary policies (as discussed in Chapter III) of each state which influence participation and benefits per participant. This (B-B*) statistic given in Table 11 may be viewed as a performance criterion--a measure of the state's program effectiveness.

Thus, (B-B*) is an efficiency measure of the state's ability to secure participants in the two family food programs. It may have a negative or positive value. A positive sign would indicate that the state (by high participation rates and/or greater benefits per participant than the average state) has received more money from the programs than it really merits on the basis of its poor at the present level of Federal expenditures.

Moreover, the statistic (B-B*) can be divided by (B*) and multiplied by 100--yielding the percentages of deviation from the "ideal" distribution of expenditures. This is a somewhat better measure for comparing performance among states because it places all states on an equal (percentage) basis. As (B-B*), this statistic may have a positive or negative sign. The higher the positive value, the greater the performance of the state's programs; conversely the greater the negative (absolute) value, the weaker the performance.

Table 11. A State-by-State Analysis of Distributional Effects of Family Food Programs, 1968. a/

State	B	B/ poor	B/ part.	B/ pop'n	C	B-C	B-C/ pop'n	B/C	B-B*	$\frac{B-B*}{B*}$ b/
1 AL	11,265,731	12.12	46.77	3.20	1,863,271	9,402,460	2.67	6.05	1,195,469.72	.12
2 AK	150,285	5.88	21.88	.54	197,255	-46,970	-0.17	.76	-121,918.78	-0.45
3 AZ	2,111,880	10.09	23.46	1.27	1,017,892	1,093,988	.66	2.07	-157,120.57	-0.07
4 AR	8,934,341	15.89	59.40	4.51	899,934	8,034,407	4.05	9.93	2,843,022.84	.47
5 CA	13,582,183	9.26	50.44	.71	25,656,969	-12,074,786	-0.63	.53	-2,306,304.10	-0.15
6 CO	3,494,007	16.78	59.79	1.69	3,214,136	279,871	.14	1.09	1,237.121.23	.55
7 CT	2,252,793	14.31	48.83	.76	5,074,447	-2,821,654	-0.95	.44	546,318.01	.32
8 DE	790,863	16.15	26.75	1.48	1,850,902	-1,060,039	-1.99	.43	260,173.99	.49
9 FL	5,303,963	5.78	39.65	.85	4,957,398	346,565	.06	1.07	-4,634,487.50	-0.47
10 GA	8,857,244	8.83	45.56	1.93	4,130,217	4,727,027	1.03	2.14	-2,018,467.41	-0.19
11 HI	664,328	9.78	57.42	.86	730,803	-66,475	-0.09	.91	-71,424.09	-0.10
12 ID	280,298	3.40	38.66	.40	559,826	-279,528	-0.39	.50	-612,469.72	-0.69
13 IL	10,277,388	10.66	55.55	.94	22,001,490	-11,724,102	-1.07	.47	-168,453.82	-0.02
14 IN	3,877,000	6.48	47.09	.83	6,409,184	-2,532,184	-0.54	.60	-2,603,422.20	-0.40
15 IA	2,833,045	7.41	48.17	1.04	2,166,177	716,868	.25	1.33	-1,331,627.47	-0.32
16 KS	1,034,275	3.70	41.24	.45	1,771,239	-736,964	-0.32	.58	-1,992,063.25	-0.66
17 KY	12,022.967	15.86	67.12	3.73	4,135,803	7,887,164	2.45	2.91	3,807,657.46	.46
18 LA	7,698,212	8.96	67.97	2.07	2,530,515	5,167,697	1.39	3.04	-1,612,284.31	-0.17
19 ME	651,373	4.40	39.51	.67	682,363	-30,990	0.03	.95	-953,372.32	-0.59
20 MD	3,771,786	10.81	76.31	1.02	6,793,657	-3,021,871	-0.81	.56	-9,289.25	-0.00
21 MA	1,334,663	3.14	33.47	.25	7,893,567	-6,558,904	-1.21	.17	-3,277,088.90	-0.71
22 MI	9,049,207	11.16	46.07	1.04	20,998,033	-11,948,826	-1.38	.43	266,430.60	.03
23 MN	4,141,182	9.62	52.64	1.13	4,838,544	-697,362	-0.19	.86	-522,323.29	-0.11
24 MS	26,050,445	33.31	65.21	11.09	881,988	25,168,457	10.71	29.54	17,577,170.37	2.07
25 MO	5,028,928	7.17	40.15	1.09	7,162,364	-2,133,436	0.46	.70	-2,566,142.68	-0.34

Continued

Table 11--Continued

State	B	B/ poor	B/ part.	B/ pop'n	C	B-C	B-C/ pop'n	B/C	B-B*	$\frac{\text{B-B*}}{\text{B*}}$ b/
26 MT	1,459,210	16.90	62.20	2.10	405,503	1,053,707	1.51	3.60	523,812.91	.56
27 NB	1,157,882	5.62	65.05	.80	1,566,690	-408,808	-0.28	.74	-1,074,124.00	-0.48
28 NV	134,569	5.69	34.83	.30	511,441	-376,872	-0.84	.26	-121,814.02	-0.48
29 NH	240,914	4.17	30.44	.34	641.424	-400,510	-0.57	.38	-384,721.25	-0.61
30 NJ	3,171,620	7.07	43.48	.45	9,720,598	-6,548,978	-0.93	.33	-1,688,127.75	-0.35
31 NM	4,280,216	23.11	58.93	4.31	564,487	3,715.729	3.74	7.58	2,272,908.16	1.13
32 NY	17,702,161	11.45	33.81	.97	50,120,111	-32,417,950	-1.78	.35	947,303.01	.06
33 NC	8,127,876	6.79	41.73	1.58	5,921,379	2,206,497	.43	1.37	-4,846,730.29	-0.37
34 ND	1,096,391	9.74	42.17	1.76	311,644	787,747	1.26	3.52	-123,563.07	-0.10
35 OH	18,702,333	18.60	68.66	1.76	16,814,493	1,877,840	.18	1.11	7,804,970.99	.72
36 OK	9,376,353	20.70	41.65	3.69	2,597,037	6,779,316	2.67	3..61	4,467,474.20	.91
37 OR	3,005,261	17.18	39.33	1.50	1,911,204	1,094,057	.55	1.57	1,109,500.36	.59
38 PA	17,215,856	13.73	63.14	1.47	17,436.811	-220,955	-0.02	.99	3,630,741.71	.27
39 RI	1,263,466	14.03	54.78	1.39	1,287,192	-23,726	-0.03	.98	287,520.08	.29
40 SC	2,893.020	4.18	66.49	1.08	1,377,740	1,515,280	.57	2.10	-4,614,624.72	-0.61
41 SD	1,086,546	8.08	36.09	1.63	331,425	755,121	1.14	3.28	-371,456.35	-0.25
42 TN	10,419,800	11.38	65.99	2.64	2,723,857	7,695,943	1.95	3.83	494,027.78	.05
43 TX	9,330,464	4.71	44.91	.85	11,135,343	-1,804,879	-0.16	.84	-12,127,191.12	-0.57
44 UT	1,000,950	11.12	45.87	.97	671,683	329,267	.32	1.49	25,285.82	.03
45 VT	491,847	8.37	39.05	1.15	314,684	177,163	.41	1.56	-145,122.85	-0.23
46 VA	1,673,191	2.27	68.84	.36	4,171,925	-2,498,734	-0.54	.40	-6,301,859.69	-0.79
47 WA	5,432,771	20.53	52.73	1.65	3,822,481	1,610,290	.49	1.42	2,565,095.48	.89
48 WV	10,029,223	23.62	77.34	5.51	929,250	9,099,973	5.00	10.79	5,428,968.24	1.18
49 WI	3,712,369	9.18	46.21	.88	5,112,655	-1,400,286	-0.33	.73	-671,954.04	-0.15
50 WY	508,825	14.89	67.59	1.58	202,471	306,354	.95	2.51	138,575.84	.37

a/ All statistics except $\frac{(B-B*)}{B*}$ are in dollar values. b/ Multiply by 100 to give percentages.

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With the previous discussion in mind, Table 11 will present the statistics previously mentioned for each of the 50 states. [77/]

Discussion of Results

Although most of the results found in Table 11 are self-explanatory, a few comments are appropriate to highlight the more interesting findings. Initially, the statistic (B-C) varies considerably from state to state--elucidating that there is certainly some redistributional effects concerned with the family food programs. For example, Mississippi had the largest net gain of \$25,168,457, while New York state experienced the largest net loss of \$32,417,950. Correspondingly, the B/C ratio experienced great variation from state to state as one can visualize when comparing Mississippi's \$29.54 high ratio to Massachusett's \$.17 low ratio.

Besides considering the distributional effects which are expected, one may notice the (B-B*) column which places emphasis on the participation rate and benefits per participant effects. [78/]

[77/] All the various pieces of data used for the formulation of the statistics found in Table 11 are given in Appendix B.

[78/] If an "ideal" distribution of expenditures would occur concerning two family food programs, (B-B*) would be zero for every state. This is also true for (B-B*)/B*.

Viewing the column shows that the (B-B*) for each state varies

significantly from zero in most cases. To exemplify this, consider

Mississippi with a positive (B-B*) value of $17,577,170.37, while

Texas has a negative $12,127,191.12 value. Correspondingly, the

statistic (B-B*)/B* multiplied by 100 yields significant deviation

from the "ideal" expenditure redistribution for most states. Again,

Mississippi stands in a most favorable position, experiencing

a positive 2.07 (B-B*/B*) value (207%), while Virginia experienced

a negative .79 or 79 percent value. Thus, one could generalize

and conclude that Mississippi had the most aggressive state/local

food programs when considering the participation and benefits

per participant effects on expenditure redistribution, while Virginia

had the least aggressive.

Comparison of the Distributional Effects by Regionality and Rurality

In addition to analyzing the distributional effects of each state

individually, one can group the states in various ways and obtain

the distributional effects. In this study the states were divided into

groups in order to examine the distributional effects according to

rurality and regionality. The regionality grouping was obtained by

dividing the states into four geographic regions: the Northeast,

North Central, South, and West. The rurality grouping was

obtained by dividing the states in three groups according to the

proportion of each state's population which is considered rural[79]

(27, p. 341). In this study the state groupings are rural, urban-

rural, and urban.[80]

With these groupings of states according to regionality and

rurality it is possible to present the various statistics given in

Table 11 for these prescribed categories. Tables 12 and 13 give

the comparison of distributional effects plus other statistics by

rurality and regionality, respectively.[81]

When looking at Table 12, one can see several distributional

effects involved, especially when comparing the rural group with

the other groups. The rural group had the highest (most favorable

numerical values for a positive net redistribution) value of every

statistic compiled. A more interesting but misleading

statistic was (B-B*), in which the rural grouping had the only

positive value ($16, 479,650. 03). These results might lead one to

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[79] Based on 1960 census which considers people living in areas of
less than 2,500 as rural.

[80] Within this urban group was derived a subgroup designated as
highly urban. This subgroup will also be used for comparative
purposes in Table 12.

[81] For Tables 12 and 13 the statistic B/population was disregarded for
it was believed by the author that it is meaningless when making
comparisons by rurality and regionality. Likewise, the
$\frac{(B-B*)}{B*}$ was disregarded due to aggregation problems.

Table 12.   Comparison of the Distributional Effects by Rurality.

Group [a/]	B/poor [b/] ($)	B/part. [c/] ($)	B-C [d/] ($)	B/C [e/] ($)	B-B* [f/] ($)
Rural	11.31	52.32	64,329,031	2.5	16,479,650.03
				(29.54-.50)	
Urban-Rural	11.22	44.82	20,966,543	.86	-6,785,854.39
				(7.58-.26)	
Urban	10.73	49.74	-85,295,574	.84	-9,693,795.64
				(2.07-.17)	
Highly urban	9.99	45.77	-72,170,000	.35	-5,658,334.70
				(.44-.17)	

a/ Individual states within each group, in order, starting with the most rural, are:

    Rural: N.D., Miss., Alaska, W.Va., Vt., S.D., N.C., S.C., Ark., Ky., Ida., Mont.,
        Maine, Tenn., Iowa, Neb.

    Urban-rural: Ala., Ga., Va., Wyo., N.H., Kans., Minn., Ore., Ind., Okla., La., Wis.,
        Del., N.Mex., Mo., Wash., Nev.

    Urban: Pa., Md., Mich., Ohio, Colo., Fla., Ariz., Utah, Texas, Hawaii, Conn., Ill.,
        Mass., N.Y., Calif., R.I., N.J.

    Highly urban: Conn., Ill., Mass., N.Y., Calif., R.I., N.J.

Table 12--Continued.

b/ Represents the simple average B/poor within each group.

c/ Represents the simple average B/part. within each group.

d/ Represents the sum of B-C within each group.

e/ Because of weighting difficulties, this statistic represents the median and range of B/C within each group.

f/ Represents the sum of B-B* within each group.

Table 13. Comparison of the Distributional Effects by Regionality.

Region [a] \ Statistic	B/poor [b] ($)	B/part. [c] ($)	B-C [d] ($)	B/C [e] ($)	B-B* [f] ($)
Northeast	8.96	42.95	-48,846,504	.44 (1.56-.17)	-1,036,550.26
North Central	8.95	49.09	-27,437.392	.74 (3.52-.43)	-3,353,728.57
South	12.59	56.36	79,645,264	2.52 (29.54-.40)	-90,969.70
West	12.67	47.24	-3,361.368	1.42 (7.58-.26)	4,481,248.53

a/ Individual states within each region are:
    Northeast: Maine, N.H., Vt., Mass., R.I., Conn., N.Y., N.J., Pa.
    North Central: Ohio, Ind., Ill., Mich., Wis., Minn., Iowa., Mo., N.D., S.D., Neb., Kans.
    South: Del., Md., Va., W.Va., N.C., S.C., Ga., Fla., Ky., Tenn., Ala., Miss., Ark., La.,
        Okla., Texas.
    West: Mont., Ida., Wyo., Colo., N. Mex., Ariz., Utah, Nev., Wash., Ore., Calif.,
        Alaska, Hawaii.

b/ Represents the simple average B/poor within each region.
c/ Represents the simple average G/part. within each region.
d/ Represents the sum of B-C within each region.
e/ Because of weighting difficulties, this statistic represents the median and range of B/C within each region.
f/ Represents the sum of B-B* within each region.

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believe most all rural states were "doing okay" concerning the

family food program. However, this would be in error because

of the large positive estimate for a single state in the rural group.

Mississippi had a (B-B*) value of $17,577,170.37 which is slightly

greater than the total rural group's (B-B*) value. Thus, excluding

Mississippi from this rural group would produce a slightly negative

(B-B*) value.

Concerning Table 13, no clear distributional effects are noted;

however, the South and West seem to be faring the best. The

South had the only positive (B-C) value, while its (B-B*) was

slightly negative. Conversely, the West experienced a negative

(B-C) value, while its (B-B*) value was the only positive one.

But both the Northeast and North Central regions experienced

negative (B-C) and (B-B*) values.[82]

Summary

In conclusion, one can say from Table 11 that there are

distributional effects among states from the family food programs

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[82] These results reflect the effects of varying participation rates,
benefits per participant, number of poor of each grouping
(affects the benefits), and also the tax burden shared by each
group (affecting the costs) of states.

when one utilizes the (B-C) values. And, this is to be expected

because by design the food programs redistribute incomes among

the states. Also, one can say there are performance differences

when viewing the (B-B*) and (B-B*)/B* values; however, these

performance differences are not theoretically supposed to occur.

They do occur because of the wide participation rate and benefits/

participant differences between states; supporting the conclusions

made in Chapter III that the performance of a state's family food

programs are affected by the state's over-all delivery system

(state and local obstruction). Moreover, this leads to the conclusion

that a major portion of each state's performance is not caused by

design of the programs (Federal causation), but due to the

individual states (local causation).[83/] However, when distributional

effects are examined by groups or regions (rurality and regionality),

the conclusions are somewhat obscure due to the fact that in-

dividual states have considerable power over the performance of

their programs and this leads to substantial variability among states

in a given group. Therefore, unless individual states act very

similar to every other state in that particular grouping (and appar-

ently they do not as Table 11 indicates), no meaningful conclusions

can be drawn.

[83/] A prime example of this is the case of Mississippi.

V. SUMMARY AND IMPLICATIONS

Summary

In the last decade poverty has become one of the central issues of our political system and among the citizenry. This upsurge of interest is reflected in the vast quantities of books, articles, research programs, advisory commissions, Congressional hearings, and legislation directed toward the goal of alleviation of poverty. However, the question of how one should assist the poor brings forth a great divergence of opinion. This divergence is reflected by the many programs (Social Security or OAA, AFDC, the food programs, and many others) which are offered for combating poverty.

The great deluge of programs has produced only mediocre results, plus a general nation-wide financial welfare crisis. This crisis has been a principal factor in generating President Nixon's welfare reform proposals pending in Congress at present. Although the mood of the citizenry and political leaders is conducive to welfare reforms, and many programs are in danger of change or termination, the two family food programs (at least the food stamp program) seem to be sheltered from extinction for several years. Moreover, many recent legislative bills have been proposed to

strengthen the family food programs.

That the food programs seem to be in a secure position for the immediate future coupled with the fact that the programs have not reached a significant number of the approximate 25 million poor has spurred the formulation and completion of this study. Moreover, not only has participation been mediocre, but great variations in participation rates have occurred from state to state. Such low nation-wide participation rates plus the inequalities of the system (significant interstate participation rate deviations) directed the major thrust of this study towards explaining the interstate differences of participation rates and the redistributional effects which result. It was deemed important by the author to analyze these aspects from a policy standpoint, since the programs are presently being expanded.

In dealing with the explanation of the participation rate differences among states, several variables were hypothesized (Chapter III) to affect participation rates.

Five variables were proposed: (1) eligibility standards; (2) proportion of each state's population which lives in a food program area; (3) type of program (two variables); and (4) ratio of poor to population in each state. A sixth non-quantifiable variable was state and/or local obstruction; however, this variable could not be tested.

Therefore, the five quantifiable (independent) variables were utilized in multiple linear regression to explain interstate variations of the participation/poor ratio (dependent variable). The results were somewhat surprising since the only variable to explain significantly any of the variation was that of the proportion of each state's population living in a food program area. However, this independent variable did not explain the majority of the variation experienced in the dependent variable.

What was most surprising were the results of the variable concerning eligibility. Even though eligibility standards varied significantly from state to state, they did not affect participation rates among the state. Although this result does not lead to the conclusion that if a particular state raised its eligibility standards its participation rate would not increase.

Having examined these regression results, it was then concluded that the non-quantifiable variable of state and/or local obstruction has a significant effect upon the participation rates among states. This suggests that such factors as aggressiveness of state or local officials, payments timings, educational opportunities, informing practices, attitudes of the personnel working with the recipients and numerous others play a vital role in participation.

Thus, having analyzed the variables which affect participation rates, the study turned to analyzing how these varying participation

rates as well as other factors affect the interstate expenditure transfers (Chapter IV). Initially, the distributional effects were analyzed with respect to the benefits (of the food programs) received by each state as opposed to the costs incurred. These benefits were based on Federal family food program expenditures and the costs were expenditures the state could expect according to its proportion of the Federal tax bill contribution. Performing this benefit and cost analysis, it was found that the (B-C) statistic varied significantly from state to state; however, this was not surprising since by design of the family food programs there is a distributional effect.

The critical question concerns whether this distribution of (B-C) is the "ideal" distribution. By "ideal" is meant the distribution of expenditures exactly proportional to the number of poor each state has compared to the U.S. total. To measure this the statistics (B-B*) and (B-B*)/B* were formulated in which B* is the proportion of the total family food expenditures each state should receive according to the proportion of U.S. poor residing in the state. Therefore, any deviation from zero for either (B-B*) or (B-B*)/B* represents a variation from the "ideal" distribution; and in essence, measures the performance or effectiveness of each state's food programs. The statistic (B-B*) yields the monetary deviation while (B-B*)/B* represents the

percentage deviation from the "ideal".

The results of the normative "ideal" distribution analysis are that several states such as Mississipi are more effective in reaching and serving the poor [very high positive (B-B*) and (B-B*)/B* values] than the average state. Conversely, many states have very low values (negative) for these statistics which reflects a weak performance.

When states were grouped by rurality and regionality, some minor differences emerged. However, this aggregate analysis did not prove enlightening because the wide variations among states within various groups limited the reliability of group statistics.

Implications

The implications of this study may be divided into two categories--implications for the state and for the Federal government. But before discussing these implications, it is important to note that this study was based on fiscal 1968 data. Some major changes have been made in both the food stamp and commodity distribution programs. Specifically, more liberalized coupon issuance tables are used (food stamp), eligibility standards have been raised, more commodities have been offered (commodity distribution), less restrictive rules have replaced highly restrictive ones, and more areas have initiated food programs. As a consequence, participation

nationally has increased significantly (approximately 40-50 per-

cent between fiscal 1968 to fiscal 1970).

In particular, the number of counties offering no food

program are now only 73 compared with approximately 1,000 in

1968. This indicates that the one variable which significantly

explained any variation in participation rates in fiscal 1968 will

not be important in 1971. These recent developments place even

more emphasis on state and/or local obstruction in future years

than in 1968. With the previous discussion in mind, the implications

of this study will be discussed below.

The implications for the various states concern the con-

clusion that state and local obstruction very significantly affect

the participation rate in a state, which in turn affects the expenditure

share it receives from the government. Under the assumption that

the state would like to maximize its expenditure share from the gov-

ernment from family food programs, it must create a very aggres-

sive and effective information and delivery system. Moreover,

since the total Federal expenditures for these two programs are

increasing every year, a state having very low participation rates

at present and not attempting improvement could risk the possi-

bility of widening the distributional effects noted in Chapter IV.

For example, Mississippi experienced (in 1968) some very

lucrative distribution gains from the family food programs (using

any statistics one cares to consider). Conversely, several states

have experienced some very substantial losses. If in the future

Mississippi continues to operate as it did in 1968 (with a high

performance) and the states with weak performance continue in

similar fashion, the expenditure-distribution gap (interstate) would

increase due to the increasing total expenditures available.

Viewed in terms other than maximizing the expenditure

share of the state, the poor in the various states experience the

net gains or losses the state imposes through the effectiveness or

inadequacy of state program policies and operations. They are the

people who experience the results of good or bad state performances.

Thus, if a state prefers to maximize the Federal govern-

ment's expenditures of the family food programs or to maximize

the dietary adequacy of its populace (or both); it must operate

the food programs with the least amount of obstructive discretionary

policies. For these policies hamper the participation rates and

hinder the family food program's stated objectives.

Following from the previous discussions, the implications

of this study for the Federal government are somewhat apparent.

If the government wants programs which provide every person in

the U.S. with the opportunity for an adequate diet, it most certainly

will have to change the constructs of the two family food programs.

Initially, the Federal government must alter the benefit

structure of the programs in order to provide those who participate with an adequate diet. For example, in 1968 the coupon issuance tables (food stamp) and the types and quantities of commodities available (commodity distribution) were such that those participating could not maintain an adequate diet. However, the trend in the last two years has moved in the direction of liberalized issuance tables and more commodities available.

Secondly, the government must provide guidelines and constraints for the states in order for the food programs' participation rates and benefits per poor of the same income level to not vary as significantly from state to state. At present each individual state holds discretionary power over numerous aspects of the programs such as eligibility standards, method of delivery of the benefits, educational assistance offered, and other policies which lead to obstruction as mentioned in previous chapters. This state and local discretionary power had led to participation variations and deviation from the "ideal" distribution. Therefore, in order to eliminate some of these inequalities the government must provide a more uniform structure. If this were to be accomplished a poverty stricken individual would have a more equal chance to participate. His participation would not depend on where he lived.

In summary, to achieve the theoretical purposes the family food programs acclaim, the state and Federal governments must be

prepared to first meet the financial requirements. Moreover,

if the budgetary requirements are fulfilled and it is desirous that

the family food programs expand, a more uniform structure is needed

to alleviate the state and/or local obstruction before the stated

objectives can be achieved in an efficient manner. If in the 1970's

the family food programs continue to be expanded, measures to

alleviate the state discretionary policies, which create inequalities

and hamper participation, must be enacted. If not, the family food

programs will be subject to criticism because of their inequity just

as many other public assistance programs have been plagued by this

weakness.

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APPENDIX

APPENDIX A

Listing of the Obligations of Participating Retail Food Stores

1. Post in the store the "Official Food List" issued by C&MS.

2. Accept coupons for only eligible foods.

3. Shall not accept coupons marked "paid" or "cancelled" in exchange for foods.

4. Shall not yield cash for coupons--but for the purpose of making change of an amount of less than $.50, cash can be granted to the recipient.

5. Shall not retain custody of any unexpended coupons of eligible households or use or adopt any trick, scheme, or device to prevent an eligible household from using unexpended coupons in other authorized food stores.

6. Shall not provide foods to individuals prior to the time the coupons are tendered in payment for eligible foods.

Source: (20, p. 2467).

LEGEND FOR APPENDIX B

a/ In thousands.   b/ Source: (27, p. 341).   c/ Source: (14, p. 98) Based on total revenue
                                                                                collections from states.

d/ Source: (26, p. 1-2) Based on resident population.

e/ Source: (16, p. 9) Based on updated 1960 census estimates to give 1968 estimates.

f/ Source: (15, p. 191-192, and 350-351) The states of Illinois, New Jersey, and New York had
     differing eligibilities for the two programs so an average was computed for the family of
     four. Also, Kansas did not have a definite eligibility so its eligibility was estimated by
     averaging the income eligibilities of the four surrounding states for a family of four.

g/ Source: (21) Represents peak month participation.

h/ Source: (21).

i/ Source: (25) and USDA-C & MS fact sheet containing food program statistics for May, 1968.

j/ Source: USDA-C & MS fact sheet containing food program statistics for May, 1968. The May,
     1968 food stamp and commodity distribution participation numbers were used in the
     regression analysis in Chapter III, while February, 1968 commodity distribution parti-
     cipation numbers were combined with May, 1968 food stamp numbers for Chapter IV.

k/ If greater than 75.0, use a dummy variable for C.D.; if less than 25.0, use a dummy variable
     for F.S. in regression analysis.

l/ Based on May food stamp and May commodity distribution participation numbers.

m/ Based on peak month participation (May for F.S. and Feb. for C.D.).

Statistic State	Per Capita Income $ '68	% pop'n rural b/	Federal taxes c/	Pop'n '68 a/ d/	# Poor '68 a/ e/	Eligibility income $ '68 f/	Part. C.D. Feb '68 a/ g/	Part. F.S. May '68 a/ g/	Federal money C.D.'68 a/ h/	Federal money F.S.'68 a/ h/	Pop'n '66 a/ i/	Pop'n C.D. '66 a/ i/	Pop'n F.S. '66 a/ i/	Part. C.D. May '68 a/ j/	% Food pop'n C.D. '66 k/	Part. poor May '68 l/	Poor pop'n '68	Part. '68 peak month m/
Ala.	2337	47.7	1122438	3522	929	175	188	53	7544	3721	3524	1682	1046	203	61.7	.28	.26	.26
Alaska	4146	62.1	118827	276	25	325	6	1	110	40	265	0	6	0	0	.02	.09	.27
Arizona	3027	25.5	613180	1667	209	232	90	0	2112	0	1609	1609	0	79	100.0	.38	.13	.43
Ark.	2332	57.2	542122	1983	562	190	70	80	2892	6042	1963	695	1268	46	35.4	.22	.28	.29
Calif.	3968	13.6	15455808	19179	1466	292	68	201	2471	11112	18669	3466	9815	54	26.1	.17	.08	.18
Colo.	3340	26.3	1936202	2067	208	248	10	49	239	3255	1967	57	1868	2	2.9	.25	.10	.28
Conn.	4256	21.7	3056857	2961	157	280	3	43	114	2139	2886	526	891	3	37.1	.29	.05	.29
Del.	3795	34.4	1114987	533	49	215	30	0	791	0	514	514	0	26	100.0	.53	.09	.60
Fla.	3191	26.1	2986346	6210	917	250	134	0	5304	0	5914	4372	0	137	100.0	.15	.15	.15
Ga.	2781	44.7	2488051	4579	1004	215	153	42	6417	2440	4462	2500	1114	145	69.2	.19	.22	.19
Hawaii	3513	23.5	440237	775	68	250	0	12	0	664	733	0	733	0	0	.17	.09	.17
Ida.	2668	52.5	337240	709	82	238	7	0	280	0	700	249	0	6	100.0	.08	.12	.09
Ill.	3981	19.3	13253740	10958	964	270	34	151	1052	9225	10787	1994	7740	29	20.5	.19	.09	.19
Ind.	3412	37.6	3860905	4662	598	275	46	36	1391	2486	4973	2838	2055	42	58.0	.13	.13	.14
Iowa	3265	47.0	1304909	2775	389	295	31	29	1017	1866	2764	686	1913	22	26.4	.13	.14	.15
Kans.	3303	39.0	1066998	2291	279	250	22	3	827	207	2275	778	151	22	83.7	.09	.12	.09
Ky.	2645	55.5	2491416	3224	758	200	57	122	2417	9606	3181	1389	1734	56	44.5	.23	.24	.24
La.	2634	36.7	1524387	3710	859	165	27	86	1218	6480	3624	320	1305	41	19.7	.15	.23	.13
Maine	2824	48.7	411057	978	148	271	15	2	520	131	985	895	90	19	90.9	.14	.15	.11
Md.	3742	27.3	4092512	3716	349	185	3	47	173	3599	3608	104	3145	1	3.2	.14	.09	.20
Mass.	3835	16.4	4755100	5438	426	286	40	0	1326	8	5403	5054	113	48	97.8	.11	.08	.09
Mich.	3675	26.6	12649256	8673	811	265	107	89	3679	5370	8496	2919	5521	104	34.6	.24	.09	.24
Minn.	3341	37.8	2914748	3663	430	290	19	60	614	3527	3585	450	2621	16	14.6	.18	.12	.18
Miss.	2081	62.3	531311	2349	782	180	211	188	9474	16576	2339	836	1503	177	35.7	.47	.33	.51
Mo.	3257	33.4	4314622	4610	701	270	101	24	3097	1931	4567	2486	692	95	78.2	.17	.15	.18
Mont.	2942	49.8	244276	696	86	253	16	7	469	990	703	118	190	15	38.3	.26	.12	.27
Neb.	3239	45.7	943777	1453	206	270	2	16	61	1097	1442	21	1004	2	2.1	.09	.14	.07
Nev.	3957	29.6	308093	449	24	260	4	0	135	0	435	305	0	3	100.0	.12	.05	.16

Statistic	Per capita income $ '68	% pop'n rural b/	Federal taxes c/	Pop'n '68 a/ d/	# Poor '68 a/ e/	Eligibility income $ '68 f/	Part. C.D. Feb '68 a/ g/	Part. F.S. May '68 a/ g/	Federal money C.D. '68 a/ h/	Federal money F.S. '68 a/ h/	Pop'n '66 a/ i/	Pop'n C.D. '66 a i/	Pop'n F.S. '66 a i/	Part. C.D. May '68 a/ j/	% Food pop'n C.D. '66 k/	Part. poor May '68 l/	Poor pop'n '68	Part. '68 peak month m/
N. H.	3259	41.7	386395	703	58	244	8	0	241	0	676	676	0	7	100.0	.13	.08	.14
N. J.	3954	11.4	5855707	7070	448	290	24	49	537	2635	6911	2220	3659	17	37.8	.15	.06	.16
N. Mex.	2651	34.1	340048	994	185	215	40	32	1568	2713	1009	552	443	37	55.5	.38	.19	.39
N. Y.	4151	14.6	30192452	18186	1546	338	483	41	14983	2719	17968	15335	1742	505	89.8	.35	.09	.34
N. C.	2664	60.5	3567050	5131	1197	195	149	46	5101	3027	4987	2999	1190	115	71.6	.13	.23	.16
N. D.	2730	64.8	187735	624	113	295	17	9	683	413	642	307	237	15	56.5	.21	.18	.23
Ohio	3509	26.6	10129083	10610	1006	260	36	237	1158	17544	10397	765	8735	25	8.1	.26	.09	.27
Okla.	2880	37.1	1564460	2542	453	212	225	0	9376	0	2478	2444	0	217	100.0	.48	.18	.50
Ore.	3317	37.8	1151313	2004	175	266	63	13	2062	943	1966	1416	532	52	72.7	.37	.09	.44
Pa.	3419	28.4	10503969	11750	1254	275	38	234	1471	15745	11657	4097	7495	35	35.3	.21	.11	.22
R. I.	3549	13.6	775407	908	90	245	4	19	122	1141	898	174	651	4	21.1	.26	.10	.26
S. C.	2380	58.8	829953	2669	693	160	0	44	0	2893	2607	0	615	0	0	.06	.26	.06
S. D.	2876	60.7	199651	665	135	250	29	2	1042	45	680	346	54	26	86.6	.21	.20	.22
Tenn.	2579	47.7	1640857	3952	916	200	33	125	1370	9050	3878	485	3214	29	13.1	.17	.23	.17
Texas	3029	25.0	6707952	11013	1980	190	190	18	7550	1780	10714	7085	995	180	87.7	.10	.18	.10
Utah	2790	25.1	404623	1031	90	227	15	7	469	532	1010	446	564	14	44.2	.23	.09	.24
Vt.	3072	61.5	189566	429	59	285	8	4	256	236	410	259	151	7	63.2	.20	.14	.22
Va.	3068	44.4	2513176	4604	736	225	8	16	488	1185	4481	202	538	8	27.3	.03	.16	.03
Wash.	3688	31.9	2302670	3296	265	290	43	60	1525	3908	3074	1390	1684	30	45.2	.34	.08	.39
W. Va.	2470	61.8	559782	1819	425	250	8	121	296	9733	1815	0	1815	0	0	.29	.23	.31
Wis.	3363	36.2	3079873	4211	405	260	45	35	1671	2041	4178	2167	1798	40	54.7	.18	.10	.20
Wyo.	3190	43.2	121969	322	34	300	1	6	40	469	320	0	320	0	0	.19	.11	.23