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FOOD STAMP REFORM

Maurice MacDonald

UNIVERSITY OF WISCONSIN-MADISON

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ABSTRACT

This paper analyzes three bills to reform the food stamp program: S.2451, sponsored by Senators McGovern and Dole; S.2537, the Administration's proposal; and S.1993, sponsored by Senator Buckley. The most important provisions of these reform bills are summarized and evaluated, emphasizing proposed income maximums for eligibility and changes in benefit levels. Then the impacts of each bill on selected aspects of program structure are simulated, using Current Population Survey data for 1974. The Administration bill is found to have the smallest total subsidy cost, while maintaining the existing program's poverty reduction effect. The Buckley bill would boost that antipoverty effect by restricting eligibility to the prestamp poor and by increasing their benefits. Relative to the existing program, the McGovern-Dole bill offers the greatest savings in administrative costs.

FOOD STAMP REFORM

Introduction

Partly as a consequence of economic recession and partly due to the 1973 Congressional mandate that all counties should offer food stamps as of July 1, 1974, the food stamp program has grown rapidly during recent months. In July 1974, 13.8 million persons used food stamps. One year later, this figure had mushroomed to 18.1 million, boosting annual subsidy costs from 3 to 5 billion dollars. Throughout 1975, fiscal conservatives expressed extreme misgivings about this cost and caseload expansion, despite its obvious connection to the recession's severity. In an attempt to control costs, the Ford Administration proposed, but could not sustain, a measure that would have reduced food stamp bonuses for many (mostly 1 and 2 person) recipient households via the institution of a uniform purchase price set at 30 percent of household net income. In addition to focusing public attention on the program's growth, this move also generated a legislative clamor for a review of the program's structure and operations. Besides predictable concern for bureaucratic mismanagement and fraud, considerable outrage arose over the discovery that the program's rules permitted some unexpectedly high-income households to participate. Treasury Secretary Simon was even moved to declare the program a "haven for chiselers and ripoff artists."

Although food stamp proponents quickly rejected Simon's caricature, they also welcomed the opportunity to reexamine the

program's structure. Committees in both Houses of Congress were thus directed to thoroughly investigate the program, in preparation for reform legislation. By January 1976, three major food stamp reform bills were under consideration.

This paper examines the major features of these three bills in order to sketch politically feasible alternatives for the food stamp program. After summarizing and evaluating the most important provisions of the reform proposals, results from simulating the impact of each proposal on selected program features are presented with particular attention to expected antipoverty effects. A unique feature of these simulations is that they allow for a participation response to changes in recipient benefits, as discussed in the Technical Appendix A describing simulation methods.

Three Proposals to Reform the Food Stamp Program

Table 1 summarizes the primary features of Senate bills S.2451 (sponsored by Senators McGovern and Dole), S.2537 (sponsored by the Ford Administration and hereafter termed Ford-Butz), and S.1993 (sponsored by Senator Buckley and, in the House of Representatives, by Representative Michel). Table 2 and Figure 1, respectively, illustrate the effect of these features on income maximums for program eligibility and on food stamp bonus amounts. In combination, Table 1, 2, and Figure 1 facilitate comparisons of the reform bills.

The Standard Deduction and Income Maximums

Under current program regulations, there is no effective ceiling on the gross income a household may have and still receive benefits,

Table 1. A Comparison of Food Stamp Reform Proposals

Characteristic	Ford-Butz (S.2537)	McGovern-Dole (S.2451)	Buckley-Michel (S.1993)
Amount of standard deduction (per month)	$100 plus $25 for the elderly	$125 plus $25 for the elderly, varied by region and by metropolitan-nonmetropolitan residence	None except $25 for the elderly
Added work disincentive (notch)?	Yes	Yes	Yes
Limit on assets	Attempts to prevent divestment for eligibility purposes	No change	Increased from $1500 to $2250 for 2+ households; expands definition of countable assets[a]
Purchase requirement	30 percent of net income	Eliminated, and existing benefit schedule maintained	30 percent of gross income
Allotments	Increased slightly by switch from Economy Diet Plan to Thrifty Food Plan	No change	Increased substantially by switch from Economy to Low-Cost Diet Plan
Outreach	"The state shall carry-out a reasonable program"	Provides for notification of all Social Security, SSI, AFDC and Unemployment Compensation recipients about the program's income and resource guidelines	No change
Eligibility of public assistance households	Eligibility rules for nonpublic assistance households would apply	Eligibility rules for nonpublic assistance households would apply	No change
Accounting period	Implement a 90-day retrospective accounting period, with 30-day check-ups; benefits paid monthly	No change	No change

Table 1 (cont.)

Characteristic	Ford-Butz (S.2537)	McGovern-Dole (S.2451)	Buckley-Michel (S.1993)
Work requirement	Tightened[b]	Lowers maximum age of work registrants to sixty from sixty-five	No change
Students	All students who are tax dependents of an ineligible household become eligible	Same as Ford-Butz	All households containing college and grad students become ineligible
Administrative costs	USDA would pay 75 percent of direct costs incurred in eliminating fraud by nonpublic assistance households	No change	No change
Other aspects	Only citizens and resident aliens would remain eligible	Eliminates the cooking facilities requirement	Gross income definition expanded to include the value of federal in-kind food and housing benefits

Source: U.S. Senate, Select Committee on Nutrition and Human Needs, Food Stamp Legislative Alternatives, 94th Congress, 1st Session (Washington, D.C.: U.S. Government Printing Office, 1975).

[a]The Buckley-Michel bill would require that the following items be counted as assets: the value of a car to the extent it exceeds $2100, the value of household goods and personal effects to the extent it exceeds $1500; the value of a home to the extent it exceeds $25,000, and the cash value of life insurance policies with a face value of over $1500.

[b]Besides reducing the age requirement from 65 to 60, categories of people required to register for work are more clearly defined by specifying that dependent children (requiring child care and exempting a household member from work registration) means children under age six. In addition, work registrants must establish that they are actively seeking employment.

Table 2. Gross Income Maximums for Food Stamp Eligibility, Current and Proposed

Household Size	Current[a]	Buckley-Michel[b]	Ford-Butz[c]	McGovern-Dole (High)[d]	McGovern-Dole (Low)[e]
1	3,450	2,590	3,790	4,492	2,992
2	4,650	3,410	4,610	6,244	4,744
3	6,750	4,320	5,430	8,431	6,931
4	7,524	5,050	6,250	9,936	8,340
5	8,712	5,870	7,070	11,290	9,970
6	9,900	6,690	7,890	12,210	10,710
7	11,088	7,510	8,710	13,164	11,664

[a]Twelve times current net income maximum, multiplied by: 1.25 for household of 3 or fewer persons; 1.10 for households with more than 3 persons.

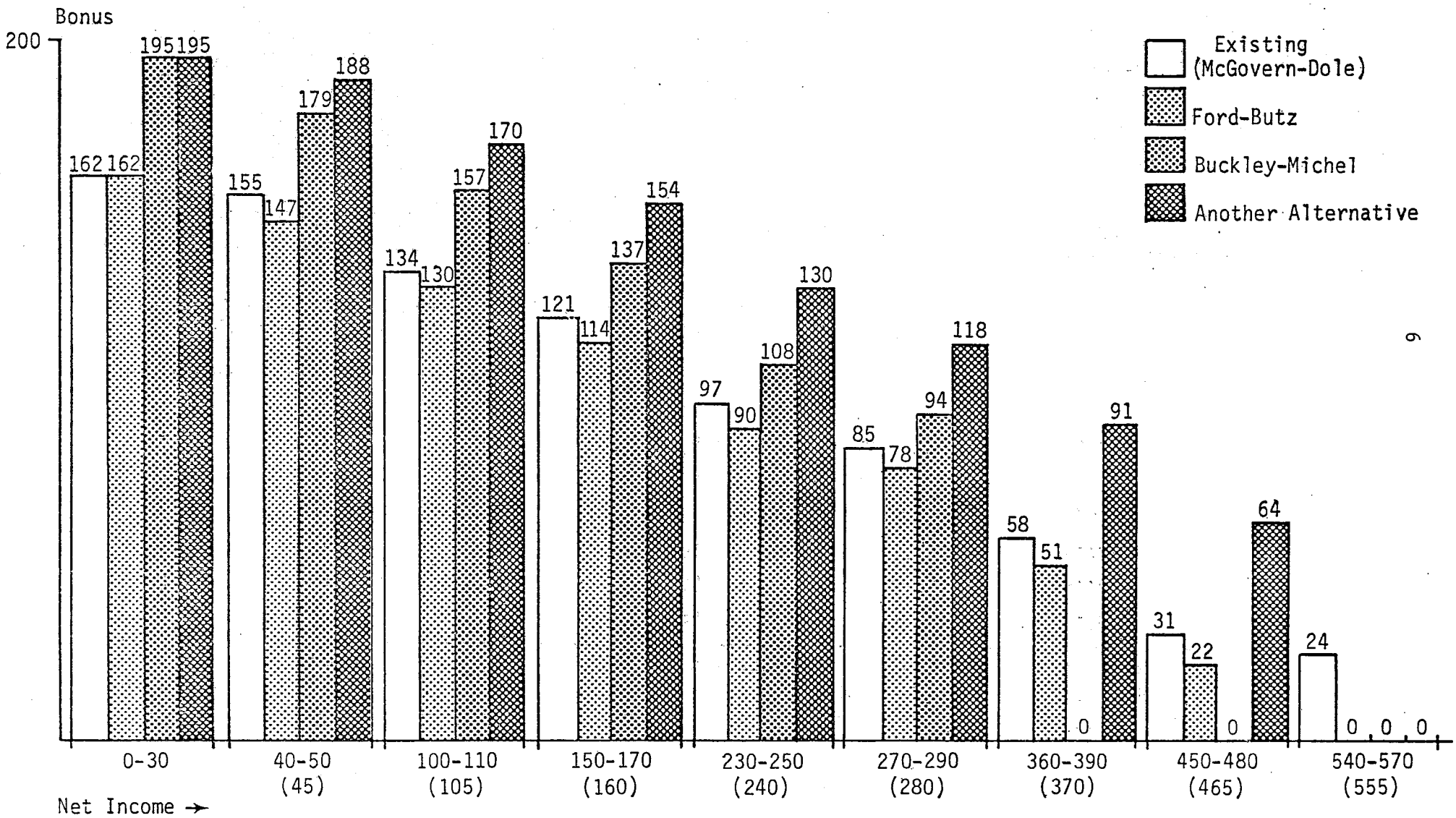
[b]1975 Nonfarm Poverty Guidelines from Community Services Administration, Poverty Guidelines for the Continental United States, March 1975. (Limits for elderly households are $300 greater, due to a $25 per month standard deduction.)

[c]1975 Nonfarm Poverty Guidelines, plus $1200 (assuming no person 60 years of age or older in the household).

[d]1975 Annualized Net Income Maximums, plus the average mandatory deduction estimated for each household size, plus $1500 (assuming no elderly persons).

[e]1975 Annualized Net Income Maximums, plus $1500 (assuming no elderly persons and no mandatory deductions).

Monthly Food Stamp Bonus at Selected Net Income Levels
for Four Food Stamp Reform Bills



due to the long list of allowable deductions for determining countable income for eligibility purposes. This deduction system also complicates the program's administration, perhaps even discouraging participation. In order to eliminate relatively high-income households from the program's rolls, and to simplify eligibility determination, the McGovern-Dole and Ford-Butz reform proposals would replace the existing deductions with a standard deduction. The Buckley bill would allow a small standard deduction for elderly households only. Thus, as shown in Table 1, all bills provide greater deductions for the elderly, while differing on the size of the proposed standard deduction for nonelderly households. In addition, the McGovern-Dole bill maintains the existing deductions for taxes, Social Security contributions, and other mandatory payroll deductions, whereas the other two replace all of the current deductions with the standard deduction. Since the McGovern-Dole standard deduction also exceeds the Administration's by $25, there are substantial differences between the resulting gross income maximums, as shown in Table 2.

This table of gross income maximums is derived from the standard deductions, as well as from explicit ceilings, such as the Buckley-Michel stipulation that gross income may not exceed the official poverty line. It illustrates the general limits on the income maximums. Only the Buckley and Administration proposals actually institute specific maximums. Thus the figures for the current program are based on estimated average deductions, and there are two sets of maximums presented for the McGovern

bill--one corresponding to the estimated average of current mandatory deductions, and one assuming no mandatory deductions.

Under the McGovern proposal, if a household actually has mandatory deductions exceeding the estimated average used in Table 2, it could qualify for benefits despite a gross income in excess of the Table's maximum. Similarly, some participants in the existing program do have incomes greater than the Table 2 figures, because their total deduction exceeds the average for their household size. Indeed, the fact that there are such participants helped to generate the move toward a standard deduction. Still, comparing the Table 2 figures does provide a gauge on the relative stringency of the three bills with respect to their effect on the income distribution of program participants.

Clearly, the McGovern-Dole proposal would allow more relatively well-off recipients than the other proposals, followed by the Administration bill and then Buckley-Michel. Relative to the current program, McGovern-Dole at least establishes a maximum that varies only with respect to differences in mandatory deductions, and with respect to the region and metropolitan-nonmetropolitan residence of the recipient. The variation by residence is intended to deal with differences in the cost of housing and utilities. (In the next section, the effect of gross income limits on program costs and caseloads are estimated on the basis of Table 2 values and the resulting gross income distribution of participants.)

Although placing an absolute ceiling on participant incomes is desirable from the standpoint of targeting program benefits to

needy persons, this step does have the disadvantage of creating a "notch" in the benefit schedule. This notch may create an incentive for near eligibles to limit their income somewhat, in order to gain from the resulting combination of increased leisure, earned income below their full earnings capacity, and whatever program benefits they still qualify for. The severity of this notch problem depends in part on the level of the income ceiling. Presumably lower ceilings imply greater notch effects, since the labor force attachments of lower-income workers may not be as strong as for higher-income workers. On this score, the McGovern proposal is least offensive, with the Buckley-Michel proposal at the other extreme.

Another program feature that affects the income distribution of participants and bears on the notch problem is the assets restriction. According to Buckley's proposal, the assets limitation for households of more than two persons would be raised from $1500 to $2250. The effect of this change, independent of the income limit, is difficult to discern; assets data for low-income households are almost nonexistent. Assuming there is a strong positive correlation between income and assets, it would seem that the effect of the new assets limitation would be a secondary consideration in light of the Buckley proposal's drastic limitation on allowable incomes. On the other hand, because eligibility depends on monthly income, and since the assets limitation prevents many persons with transitorily low monthly incomes from participating, the effect of raising the assets screen is not neglible.

A distinctive aspect of the Administration proposal also bears on this last connection. By switching from a one-month retrospective

accounting period for computing household income to a 90-day retrospective monthly income-average, this proposal also limits temporary eligibility relative to the existing situation.

Benefit Levels

Besides affecting income maximums, instituting a standard deduction changes benefit amounts. Participant households now having deductions that are less (greater) than the standard deduction would have lower (higher) net incomes under the new rules, implying increased (decreased) benefits.

Along with the indirect effect on benefits that stems from the switch to a standard deduction, the Buckley and Ford bills would change benefits directly by manipulating the program's allotments and/or the purchase requirement. Figure 1 provides a comparison of the existing and proposed bonuses at selected net income levels for a four-person household based on the benefit schedule for July-December 1975. Because the McGovern-Dole bill would not change benefit calculations, it is identified with the existing program. Relative to that program, the Ford-Butz bill would actually reduce benefits somewhat, by increasing the purchase requirement to 30 percent of net income. (However, beginning January 1976, the switch from Economy Diet-based allotments to Thrifty Food Plan allotments will somewhat offset the purchase requirement effect.) It should also be noted that a standard (30 percent of net income) purchase requirement causes greater reductions in benefits for the poorest one- and two-person households,

because these households now pay substantially less than 30 percent of net income.

Under the Buckley bill, purchase requirements would be increased even further, to 30 percent of gross income. Yet this bill also adopts USDA's Low Cost Diet plan as the allotment base, to increase the food stamp allotments for all households. Therefore on net the Buckley-Michel bill substantially increases food stamp bonuses. (Again, there is a differential effect according to household size, because small, lower-income households currently pay a lower percentage of income for their stamps than other households.) Because this same bill also eliminates more relatively high-income households, it would be the most effective of the three in terms of transferring purchasing power to needy households.

Figure 1 also displays the food stamp bonus levels that would result if the allotment under the Buckley-Michel proposal were combined with the existing purchase requirements, i.e., the bonus amounts as if the current benefit schedule was based on USDA's Low Cost Diet Plan, instead of the less costly Economy Diet Plan. These bonuses, labeled "Another Alternative" would substantially exceed those of the Buckley bill. Their effect is simulated in the next section, assuming the Ford-Butz gross income maximums.

Although the McGovern-Dole bill maintains the existing benefit schedule, it also eliminates the purchase requirement. This could encourage participation among eligible households that prefer not to exchange their cash for food stamps, thereby increasing

program costs. Likewise, changing the benefit amounts a la Ford-Butz or Buckley-Michel should affect participation. Thus the next section presents simulations wherein participation is endogenously dependent on assumed benefit levels.

Other Aspects

Outreach efforts, or lack of same, can also affect caseload size. And the reform proposals do treat outreach differently. The Buckley bill would delete the existing requirement that states conduct outreach programs "to inform low-income households concerning the availability and benefits of the food stamp program and insure the participation of eligible households".[1] The Administration bill would drop the phrase "and insure the participation of eligible households", displaying less interest in promoting the program. But the McGovern-Dole bill would extend the existing committment to outreach by mandating joint HEW-USDA outreach programs to inform all income-maintenance system participants about food stamps and to assist them in establishing their eligibility. Depending on which outreach proposal is actually adopted, some marginal impact on program costs and caseloads could result. However, state and local activities are crucial to the success of any outreach campaign, and these activities can proceed independently of federal regulations.

Any trend toward program expansion that would result from either benefit changes or outreach may be tempered somewhat by the adoption of two more proposals restricting program eligibility:

(1) All reform bills eliminate categorical eligibility for households in which all members receive cash welfare assistance regardless of income and assets.

(2) The Buckley-Michel bill tightens the program's work-registration requirement, compelling registrants to inquire regularly about employment and accept community "work training" employment. In addition, the exemption for those caring for children would be altered, such that persons could be exempted only until all children reach age six. Presumably, these changes would prevent participation by persons who now substitute food stamps for their own gainful employment.

Simulation of Reform Proposals

Based on Current Population Survey data for 1974, Table 3 exhibits how the effects of the three reform proposals and another alternative would have altered the characteristics of the actual program in 1974. The simulation method is fully described in Appendix A. In the main, it operates by hypothetically eliminating the participation of households with gross incomes greater than the maximum for eligibility under a given proposal, and by appropriately rescaling the benefits received by the remaining participants. Furthermore, in "participation endogenous" versions, participation was predicted as a function of program benefit level and household size, to add or subtract (as the case may be) participants and their associated subsidy cost. For comparison purposes, a "participation exogenous" version of the Buckley bill was also computed, assuming no participation effects

Table 3. Comparing the Simulated Effects of Food Stamp Reform Bills, Based on the Program of Calendar Year 1974

	Participation Endogeous				Participation Exogenous	
	Actual Program (1)	Buckley-Michel (2)	Another Alternative (3)	McGovern-Dole (4)	Ford-Butz (5)	Buckley-Michel (6)
Average annual number of participants (Millions)	13.88	6.87	14.23	15.04	11.42	6.47
Total subsidy cost (Billion Dollars)	3.44	2.50	7.37	4.38	2.33	2.33
Percent of total subsidy received by prestamp non-poor participants	40.0	0.0	47.9	53.2	24.3	0.0
Prestamp poor participants as a percentage of all participants	54.3	100.0	56.3	42.9	66.1	100.0
Poststamp nonpoor participants as a percentage of prestamp poor participants	47.7	57.8	88.7	54.0	40.6	53.9
Poststamp nonpoor participants as a percentage of U.S. poverty population	16.3	17.9	32.1	15.7	13.8	15.7

Ranking by Size of Gross Income Maximums	Ranking by Size of Bonus	
	1-2 Person Households	3+ Person Households
McGovern-Dole	Another Alternative	Another Alternative
Actual Program	Buckley-Michel	Buckley-Michel
Ford-Butz/Another Alternative	Actual Program	Ford-Butz/Actual Program
Buckley-Michel	McGovern-Dole*	McGovern-Dole*
	Ford-Butz	

(*--for assumed cash equivalent values)

from benefit changes. Benefit changes stemming from shifts in net income due to standard deductions greater or less than existing deductions were not considered. Neither were other marginal impacts resulting from elimination of categorical eligibility for public assistance households, or changes in work registration and assets requirements.

Because the McGovern-Dole bill neither changes benefit computations nor affects gross income maximums in a manner that could be simulated with data available to this author, it may serve to consider the actual program characteristics for 1974 as a proxy. That is, given the range of error already present in Table 3 from ignoring the impact of instituting a standard deduction, etc., there is a case for viewing the figures for the actual program as roughly indicative of the impact of the McGovern-Dole proposal--that is, no change. Yet because this proposal does eliminate the program's purchase requirement, which could favorably affect the recipient valuation of program benefits, one might expect the caseload to expand as a consequence, thereby changing the program's structure. Hence a McGovern-Dole simulation was performed, boosting participation in a manner that places an upper bound on the effects from eliminating the purchase requirement. This simulation assumed that the cash equivalent values estimated by Clarkson[2] were applicable in 1974, and that a uniform zero purchase requirement would raise these cash equivalents, such that the resulting participation response would be most pronounced among income-household size groups that were

orginally assumed to have relatively small cash equivalents. However, as would be the actual situation, the subsidy cost of this simulated program was estimated at the face value of the bonus stamps. As expected, this cost substantially exceeds that of the actual 1974 program, due to increased participant numbers. It should be emphasized that this particular result depends on assumptions that do not conform to the author's opinion that food stamps already are "near cash" transfers,[3] ruling out any pronounced effect from eliminating the purchase requirement.

Along with program cost and caseload size, four other characteristics were simulated. They indicate the mix of poor and nonpoor recipients, the distribution of benefits between these two groups, and the consequent impact on the program's poverty reduction effect. Before discussing the implications of each proposal for these features, it seems useful to compare the Ford-Butz and Buckley-Michel proposals with respect to the relative impact on total subsidy cost from eliminating participants versus changing benefit amounts. Table 4 supplies the relevant figures.

If the Administration's bill had governed the food stamp eligibility and benefit determination process in 1974, the program's total cost would have been about two-thirds of the actual 1974 cost. Fifty-eight percent of this cost saving results from a general reduction in benefit levels due to a standard, 30 percent of net income, purchase price, while the remaining 42 percent of the saving is attributable to the proposed income maximums. By contrast, the Buckley-Michel bill would lead to a somewhat smaller total saving,

Table 4. Cost-Reduction Effects of the Ford-Butz and Buckley-Michel Food Stamp Reform Proposals, by Source, as Simulated on the Basis of the Actual 1974 Program

Billion Dollar Savings, from:	Ford-Butz	Buckley-Michel
Eliminating high income participants	0.47	1.36
Changing benefit levels	0.64	-0.44[a]
Net saving, relative to the actual program	1.11	0.94[b]

Source: Primarily Table 3, columns (2) and (5).

[a]Computed as 2.50 - 2.06 = 0.44, where: 0.44 is the additional billion dollar cost attributable to changing benefits from actual 1974 to Buckley-Michel levels; 2.50 is the simulated billion dollar subsidy cost of participation by households below the Buckley-Michel gross income maximums, assuming Buckley-Michel benefits and an endogenous participation response; 2.06 is the actual 1974 subsidy cost of providing stamps to households below Buckley-Michel gross income maximums at actual benefit levels.

[b]Computed as 3.44 - 2.50 = 0.94 where: 0.94 is the billion dollar net saving from adopting the Buckley-Michel reform; 3.44 is the total subsidy cost of the actual 1974 program; and 2.50 is as defined in note 1.

stemming primarily from a substantially larger saving associated with lower income maximums, which is considerably offset by the additional costs of increased benefits for the prestamp poor participants who remain eligible.

These features also explain why Table 3 shows a greater poverty reduction effect for the Buckley-Michel bill. Despite a reduced food stamp caseload, the Buckley proposal concentrates all benefits on the prestamp poor, removing more from poverty. "Another Alternative" could produce the greatest reduction in poverty, but at the much greater costs that are associated with a larger percent of the total subsidy received by prestamp nonpoor households, and with a substantial participation response (the caseload increased by 350 million persons, net of the participants eliminated by assuming that Another Alternative has the Ford-Butz income maximums).

Although the Administration bill does eliminate a sizable number of relatively high-income eligibles, its benefit reductions are strong enough (even without assuming lower participation rates would result) to imply an estimated percentage of prestamp poor, poststamp nonpoor recipients that is smaller ($40.6 < 47.7$) than for the actual program. However, allowing for the margin of error in the simulations, the Administration's bill probably removes about the same number of persons from poverty as were removed by the actual 1974 program (or by the McGovern-Dole bill).

On the other hand, the Ford-Butz proposal is less expensive, especially if one allows for the possibility that eliminating the

purchase requirement would cause increased participation. As shown by Table 3's McGovern-Dole endogenous simulation, an upper-bound estimate of this response implies an 8 percent increase in the caseload, with a substantially greater percentage increase in subsidy cost, due to the assumption of a proportionately larger response for eligibles with very low incomes. Nevertheless it must be kept in mind that the most likely effect of eliminating the purchase requirement is no effect, since food stamps already are near cash.

Appendix B compares Table 3's cost and caseload simulations to the figures derived in simulations performed under contract for USDA. Because the USDA simulations rely on a different data base and employ different techniques, the Appendix does report sizable differences between the two sets of results. Nevertheless, after considering the pros and cons of the data and methods, the Appendix concludes that these differences do not jeopardize this section's inferences about the general effects of the various reform proposals.

Summary

The main conclusions of this analysis of three food stamp reform proposals can be summarized under the following points:

1) The poverty reduction effect of the food stamp program would increase slightly under the Buckley-Michel proposal, due primarily to the provision that prestamp nonpoor persons would become ineligible, while many remaining eligibles would receive increased benefits. If the Administration's proposal is adopted, no change is likely. Because McGovern-Dole does establish a mechanism to inform all income-maintenance participants about their eligibility and potential benefits, it could promote increased participation among eligible nonparticipants, thereby contributing to the program's antipoverty effect.

2) Of the three bills, Ford-Butz has the smallest total subsidy cost, roughly two-thirds that of the existing program. This cost reduction stems primarily from reduced benefits for households currently paying less than 30 percent of net income for their stamps.

3) As proposed in all bills, instituting a standard deduction would greatly reduce administrative costs. An attendant disadvantage is that this creates a "notch" in the program's benefit schedule, which might encourage some low-income households to restrict their work-effort to remain eligible for food stamp benefits.

4) Eliminating the program's purchase requirement (a la McGovern-Dole) would also bring substantial administrative cost savings. As noted earlier, it is the author's opinion that this step would have only slight effect on recipient well-being and consumption behavior.

Technical Appendix A

Table A displays annual food stamp bonus incomes estimated from Current Population Survey records for 70 income-household size groups. A corresponding table of the number of households in each of these 70 cells was produced by scaling the cell number of 1974 food stamp participants upwards, to exhaust the actual number of average annual participants. Then, weighting each cell average bonus by the number in the cell estimates the amount of the total 1974 food stamp subsidy cost attributable to each income-household size groups. In symbols, this is

$$S_{ij} = (B_{ij}) \cdot (N_{ij}) \text{ such that } \sum_i \sum_j S_{ij} = T$$

where S_{ij} is the total food stamp bonus received by cell ij of Table A in 1974;

B_{ij} is the cell average bonus for 1974;

N_{ij} is the number of households in the cell;

T is the total federal cost of bonus stamps in 1974.

To simulate the elimination of eligibility for high-income participants, the appropriate S_{ij} were set to zero, or, when gross income maximums fell within an income bracket, reduced via linear interpolation. For example, cells above the underlined figures in Table A would receive no bonus stamps if the Buckley proposal were adopted. Thus the estimated 1974 cost under the Buckley regime is the sum of the S_{ij} for cells below these gross income poverty lines.

Table A. 1974 Household Average Food Stamp Bonus Incomes for the Nation, by Income-Household Size Groups (Grand Mean Bonus Income=$591)

Household Income	Household Size 1	2	3	4	5	6	7 or more
less than $1500	$249	$455	$795	$778	$826	$1396	$1967
$1501-2200	246	486	732	911	1126	1519	2337
$2201-2900	207	405	658	845	1406	1212	1879
$2901-3600	214	390	539	799	1134	969	1867
$3601-4300	240	340	494	767	985	872	1666
$4301-5000	70	198	497	509	803	994	1542
$5001-5700	96	305	417	530	710	799	1088
$5701-6400	110	169	429	255	388	830	1297
$6401-9000	120	453	423	505	421	645	1272
$9,000+	287	363	241	291	367	605	796
All	236	388	537	626	747	862	1315

Source: Unpublished Data from the March 1975-April 1975 Match File of Current Population Survey Records.

Simulating benefit changes was somewhat more complicated. First group average bonuses were rescaled to reflect the expected change, as:

$$\hat{B}ij = (S) \cdot (\tilde{B}ij)$$

where $\hat{B}ij$ is the expected average bonus after the reform,

S is a scale factor, computed from existing and proposed food stamp benefit schedules (see Appendix A.1); and

$\tilde{B}ij$ signifies the average bonus for cells that remain eligibile for the program.

In "participation exogenous" simulations, the next step was to recompute all total bonuses as

$$S_x ij = (\hat{B}ij) \cdot (\tilde{N}ij)$$

where $\tilde{N}ij$ is the number of households for eligible cells.

In "participation endogenous" versions, this step was

$$S_e ij = (\hat{B}ij) \cdot (\hat{N}ij)$$

where $\hat{N}ij$ is the predicted number of participant households in eligible cells, accounting for changes in cell participation rates, as induced by benefit changes (see Appendix A.2).

Then, the sum of the $S_x ij$ or $S_e ij$ equals the total subsidy cost of the simulated program (line 1 in Table 3). In addition, weighting the $\tilde{N}ij$ or $\hat{N}ij$ by household size gives the simulated number of persons participating in the program (line 2 of Table 3).

The $S_{x}ij$, $S_{e}ij$, $\hat{N}ij$, and $\tilde{N}ij$ were also subdivided into groups below and above the Community Services Administration poverty guidelines for 1974. Hence the percent of the total subsidy received by prestamp nonpoor recipients was easily computed, as was the percentage of all simulated participants that are prestamp poor (see lines 3 and 4 of Table 3).

Using the relationship between the amount of subsidy actually received by the poor in 1974 and an estimated 47 percentage point reduction in recipient poverty,[4] the percentage of prestamp poor recipients that are poststamp nonpoor was also estimated for each simulated program. In symbols, this procedure is:

$$R_N = (\$_N) \cdot (\$_A/R_A)$$

where R_N is poststamp nonpoor recipients as a percentage of prestamp poor recipients;

$\$_N$ is the simulated dollar cost of the total subsidy received by prestamp poor recipients under a specific reform proposal;

$\$_A$ is the estimated dollar cost of the total subsidy actually received by prestamp poor recipients during 1974;

R_A is the estimate of poststamp nonpoor recipients as a percentage of the prestamp poor.

Clearly, this method produces crude estimates for line 5 of Table 3. It does not account for shifts in the income distribution of prestamp poor recipients, nor for changes in benefits by income group. Nevertheless, it should serve as a valid guide for comparing the general antipoverty thrust of the various reform proposals.

After all, the number of poor recipients and the amount of benefits they receive are the main determinants of antipoverty effectiveness.

Finally, to produce line 6 of Table 3, the proportion of poststamp poor recipients is converted to a number and then divided by an estimate of the size of the 1974 prestamp poverty population.[5] Subject to the caveats of the last paragraph, this quotient indicates how the simulated programs would have reduced the official poverty count in 1974.

Appendix A.1. Rescaling Benefits

This appendix explains the derivation of scale factors used to adjust actual 1974 group bonus averages in simulating the effect of proposed changes in food stamp benefits.

First, monthly net income brackets corresponding to Table A's annual gross income brackets were derived for compatability with the food stamp benefit-schedule.[6] Then, based on the midpoint net income of the derived brackets, the existing schedule was used to calculate one bonus amount, A. Using that same midpoint net income, a revised bonus amount B was also calculated, based on the benefit schedule implied by a reform proposal. (For instance, if the proposal raised the allotment, but did not change the purchase price, the relevant B value would exceed the corresponding A value by the difference between the new and old allotments.) Next the ratio A/B was computed as the appropriate adjustment factor, S, that was then used to predict new group average bonuses.

The assumption underlying this procedure is that there is some proportional relationship between the average annual bonus received by group participant households and the monthly bonus amount computed from the benefit schedule, and that this relationship will be maintained after changing the benefit schedule. In other words, a percentage change in the monthly bonus computed from the existing and proposed benefits schedules is assumed to produce the same percentage change in group annual average bonus income.

Appendix A.2: Simulation of Participation Response to Benefit Changes

For the Buckley-Michel and Another Alternative endogenous participation simulations the method to predict group participation rates from the adjusted average group bonuses and household size was to assume that the ratio of participation rate to average cell bonus value remained constant after adjusting the cell bonus amounts to reflect the new benefit levels. That is,

$$\frac{P_{Aij}}{B_{ij}} = \frac{P_{Rij}}{B^*_{ij}} \quad \text{was assumed;}$$

given P_{Aij}, B_{ij} and B^*_{ij}, P_{Rij} was predicted as the ijth cell participation rate. Simulated numbers of participant households were derived by multiplying the P_{Rij} by the total number of households in the ijth group.

The McGovern-Dole simulation was based on this regression equation:

$$\text{PART} = -3.05 + 0.078\ B^*_{ij} + 2.41\ \text{ONE} + 2.09\ \text{TWO} + 2.26\ \text{THREE} + 3.01\ \text{FOUR} + 2.37\ \text{FIVE} + 1.81\ \text{SIX}$$

where the cell participation rate is predicted by dummy variables for household size and an adjusted cell bonus value, $B_{ij}{}^* = (C_{ij})\ (B_{ij})$

where B_{ij} is the actual 1974 bonus value; and

C_{ij} is the cash equivalent to bonus value ratio, based on Clarkson's estimates. In another step, to represent the rise in cash equivalents that might result from eliminating

the purchase requirement, the B_{ij}^{*} were adjusted upward as

$$B_{ij}^{**} = [(1.0 - C_{ij})/(2 + C_{ij})]B_{ij}^{*} \quad .$$

This adjustment assumes greater percentage increases in cash equivalent values among the low-income, smaller household groups having smaller C_{ij} values, to reflect their proportionately greater gain from the zero purchase requirement. The B_{ij}^{**} then entered the regression equation to predict the expected rise in participation rates.

Appendix B. Comparison of Our Simulation to Department of Agriculture Estimates of the Impact of Reform Proposals

This appendix compares the simulation results of this paper to those reported by the Department of Agriculture in a November 1975 statement by Assistant Secretary of Agriculture Richard L. Feltner.[7] Table B.1 displays cost and caseload estimates from the paper and Feltner's statement, for the actual 1975 program and three reform proposals. For comparison purposes, this paper's estimates for 1974 were inflated to a July 1975 base.[8] As mentioned earlier there are sizable differences between the two sets of estimates. These arise from differences in both methodology and data input.

The USDA estimates come from TRIM (Transfer Income Model) microsimulation,[9] which treats each household in the Current Population Survey as an applicant for the food stamp program, determining: 1) if the household is eligible; 2) if it will choose to participate; and 3) the amount of bonus coupons for which it would be eligible, based on proposed benefit schedules. An important advantage of TRIM, relative to our simulations, is that it accounts for benefit changes that would result from the shift to a standard deduction. There are relative disadvantages, as well. Whereas we rely on recipients' reports on annual food stamp benefits, the TRIM model uses the July 1975 simulated caseload to calculate benefits from proposed schedules, thereby ignoring any effects of administrative discretion in determining actual benefits. In addition, the TRIM simulation of deductions is incomplete in that it does not include

nonitemized deductions (e.g., payments for medical care) that do affect the gross income distribution of participants and their respective benefits amounts. Similarly, the TRIM model does not handle asset and resource criteria, whereas the Current Population Survey data in this paper are for households that did pass the program's eligibility test on assets.

Table B.2 compares the two simulation methods in terms of the estimated percentage reductions in costs and caseloads for 1975. Although the two sets of results are qualitatively consistent, the expected magnitude of the reductions (or increase, in the McGovern-Dole case) differ substantially. Nevertheless, these differences are not so large as to prescribe changes in our conclusions about the relative impact of the various reform proposals.

Table B.1. 1975 Cost and Caseload Estimates for Various Food Stamp Reform Proposals.

Source and Estimates	Proposals			
	Current Program	Ford-Butz	Buckley-Michel	McGovern-Dole
USDA, from TRIM Model[a]				
Cost ($B)	5.5	4.3	5.2	6.3
Caseload (millions)	18.07	12.78	12.58	22.20
This Paper[b]				
Cost ($B)	5.5	3.8	4.0	6.9
Caseload (millions)	18.07	14.84	8.93	19.50

[a]Taken from pp. 200-203 of Richard Feltner's November 1975 Statement to the Senate Committee on Agriculture and Forestry.

[b]Values from "Participation Endogenous" versions in Table 3, after inflation for growth from 1974-1975 (see footnote 8 on p. 33).

Table B.2. Estimated Changes in Cost and Caseload for the 1975 Food Stamp Program.

Percentage Reduction in:	Ford-Butz	Buckley-Michel	McGovern-Dole
Participant numbers (Table 3)	-21%	-43%	+13%
Participant numbers (USDA estimates)	-41	-102	+23
Subsidy costs (Table 3)	-31	-22	+25
Subsidy costs (USDA estimates)	-22	- 5	+25

Source: Computed from Table B.1.

NOTES

1. U.S. Senate, Select Committee on Nutrition and Human Needs, Food Stamp Legislative Alternatives, 94th Congress, 1st Session (Washington, D.C.: Government Printing Office, November 1975), p. 21.
2. See Kenneth W. Clarkson, Food Stamps and Nutrition (Washington, D.C.: American Enterprise Institute, 1975), for a description of Clarkson's estimation technique.
3. Maurice MacDonald, "Food Stamps Versus Cash Transfers," unpublished manuscript, Institute for Research on Poverty, Madison, Wisconsin, 1975, p. 24.
4. Ibid., p. 36.
5. Ibid.
6. The procedure was to deflate gross income brackets by 20 percent, approximating the average deduction.
7. Statement by Richard L. Feltner, Assistant Secretary of Agriculture, before the U.S. Senate, Subcommittee on Agricultural Research and General Legislation of the Committee on Agriculture and Forestry, 19 November 1975.
8. For example, since the 1975 actual caseload was 18.07 million persons and the 1974 figure was 13.88, all of this paper's caseload estimates were inflated by a factor of 1.31 (18.07÷13.88).
9. For a description of this model, see The Urban Institute TRIM Technical Description, Working Paper 718-1 (Washington, D.C.: The Urban Institute, 1973).