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## EFFECTS OF ALTERNATIVE FARM POLICIES ON FARM AND NONFARM SECTORS OF RURAL AMERICA

Steven T. Sonka and Earl O. Heady

During the last three decades, a major change affecting rural America has been the dramatic increase in the productivity of agricultural labor. Output per farm worker increased by 237 percent between 1947 and 1970 [4, 16]. Although this growth in productivity provided increased income to some farm operators, it also resulted in decreased income opportunities for others. This decrease in opportunities led to migration of people from rural to urban areas [14]. As the farming industry became more mechanized and as more rural residents were forced to migrate to urban areas in quest of jobs, the economic viability of many rural communities declined drastically [3]. Mayer summarizes these changes in economic activity as follows [9, p. E-4]:

"... the changing structure of agricultural production has significantly altered the flows of money in rural towns. More money flows to sources in urban areas and less remains to provide jobs in rural towns. As mechanization of agriculture increased and as capital intensification occurred, rural towns have experienced a slow draw-down of economic vitality."

In addition to the mechanization of farming, other technological changes have been occurring in rural America. A most significant change has been the increased mobility, through automobiles and improved roads, of rural people themselves. Because of this increased mobility, many rural communities have lost a major portion of their clientele to larger towns which provide a wider selection of goods and services [3, 15].

Several studies also indicate that public policies designed to redress the negative impact on farmers of new technologies have contributed to the changes occurring in rural America [10, 13, 15]. Farm programs which required withdrawal of cropland from production allowed commercial farmers to expand the size of their existing farming operations and further reduced the need for farm labor. As program payments were capitalized into land values, smaller farmers who could not expand their operations still benefited from the programs through increased value of their land holdings. Similar benefits, however, did not accrue to property owners in many small rural communities. While the value of farmland rose dramatically, the value of capital assets in many rural towns declined just as dramatically as farms became larger and the agricultural work force dwindled.

Recently, national attention has been drawn to the decline of rural communities, and offsetting programs have been initiated or proposed. But, for an economic turnaround to occur in a particular rural community, it must have a basis for its economic existence or revival [7]. Rural industrialization and recreation have been proposed as foundations for economic revival of rural communities. But many rural communities do not possess the infrastructure necessary to attract new industries into their towns [17]. And the recreation potential of rural areas is limited to those communities with unusual natural or cultural resources [18]. Lack of other endowments means that agriculture will continue to be the main source of economic activity for most typical rural towns. Therefore, this study was conducted to measure quantitatively the impact of alternative government farm policies, not only on

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commercial agriculture, but also on the communities and industries that exist to serve it.

## **POLICY ALTERNATIVES CONSIDERED**

A programming model has been used to indicate some of the potential impacts that government farm policies can have on commercial agriculture and on rural America generally. Although the programming model does not completely describe commercial agriculture, its results provide insights into the direction and magnitude of these impacts. Four alternative farm policies are examined. None of these policies should be viewed as recommended or preferred by the authors. Rather, they are chosen for examination because they either are very similar to past government farm policies or have been set forth by major organizations as recommended policies for American agriculture. Also, the range of outcomes under these four policies is very broad-allowing quantification of many potential trade-offs between economic groups.

One policy alternative estimates patterns of production and income effects that might prevail for agriculture operating in an unrestrained market environment. The forces of supply and demand and market equilibrium alone would determine prices farmers receive for their goods. Direct government intervention in the market through price supports and through direct payments to farmers for retiring part of their cropland would not exist. This model will be referred to as the Free Market Alternative (and abbreviated as FMA).

The second solution or policy alternative is a land retirement program. The program is similar to the type of program in effect in the late 1960's (and in the early 1970's, except for the set-aside modification). This program requires government price supports for feed grains, wheat, and cotton. It also includes payments to farmers to divert part of their cropland from the production of specified commodities. Per-acre payments to farmers for land diversion are projected at levels consistent with payments existing in the late 1960's and early 1970's. The program is designated as the Land Retirement Alternative or the base alternative (LRA).

The third and fourth solutions or alternatives simulate conditions of production, resource use, income, and employment should farmers effectively unite to exercise market control over the supplies and market prices of the commodities they produce [2, 8]. The implementation of these program alternatives (referred to as Bargaining Power Alternative A and Bargaining Power Alternative B, and abbreviated as BPAA and BPAB, respectively,) might take the form

of national legislation allowing the formation of national commissions with appropriate powers to equate farm product supplies with demand at the specified price levels. The need for direct government intervention would be eliminated under these programs if farmers could effectively control supply [1, 11]. The Bargaining Power Alternatives in this study use production quotas based on historic production patterns. The two alternatives differ only in their level of farm prices (see Table 2).

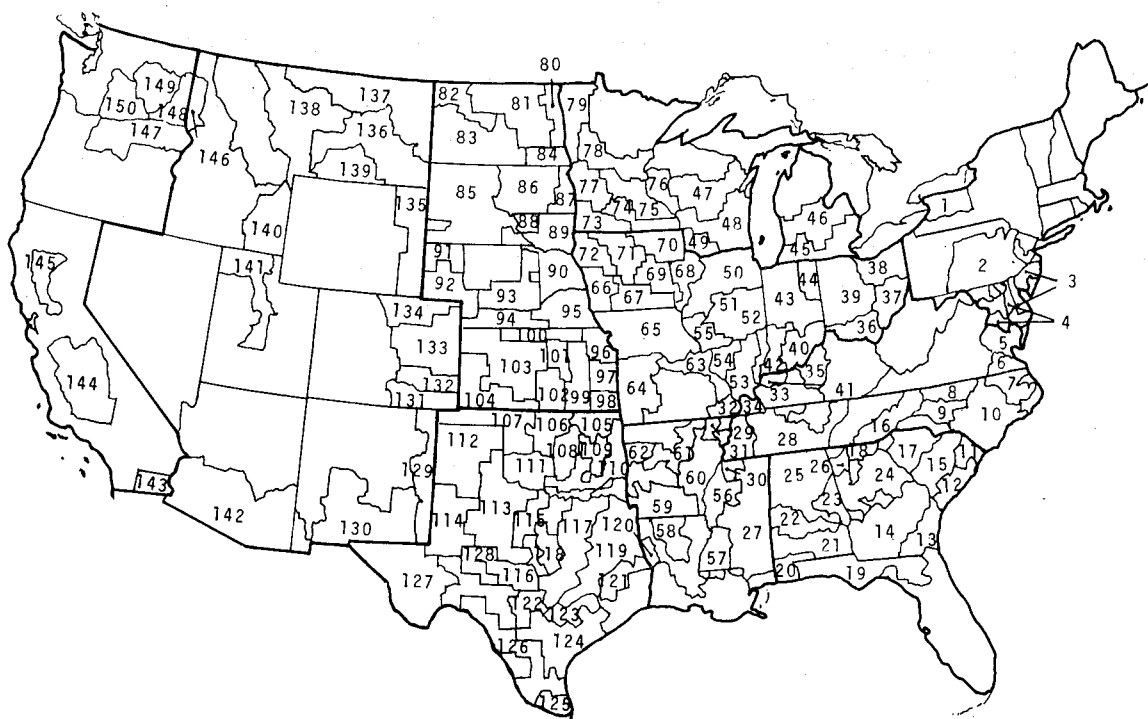
## **METHODS USED**

Production estimates developed for this paper are derived from a linear programming model of commercial agriculture [6]. The impacts of the four government farm policies on rural communities and agriculturally related industries are estimated by linking certain results of an input-output model [12] with the production estimates of the linear programming model. This process is more fully described in [6]. By linking the two estimation procedures, we combine the normative aspects of the programming model with the capability of the input-output model to trace interactions within the various sectors affected by changes in agricultural production. We now describe the programming model and the parameters used for each of the policy alternatives. After this, we describe the variables generated by the input-output model and explain their use in the analysis.

### **Programming Model Used**

The linear programming model incorporates 150 regions and determines land use and the quantity of production in each region for wheat, feed grains, soybeans, and cotton (Figure 1). Livestock also is included, but its location is determined exogenously. Production costs and yields are estimated for the farm commodities in each of these areas for the year 1975. As can be seen in Figure 1, these 150 rural areas do not encompass the entire land area of the continental United States. However, the 150 rural areas of the model accounted for 98 percent of the harvested acreage of the four commodities in 1969. Production from the land not included in the 150 rural areas is specified outside of the programming model and is set equal to the 1969 production levels in these excluded areas for the policy alternatives.

Land availability in each of these 150 rural areas is a major constraint for each farm policy alternative. The cropland base for each rural area is held constant at its 1965 level. In addition to the total land constraint, an agronomic restraint is placed on soybean production [5]. No more than 50 percent of the total land available can be devoted to soybeans in



**Figure 1. LOCATION OF PRODUCING AREAS USED IN THIS STUDY**

most of the rural areas. This restraint is increased to 70 percent of the land base in rural areas of Louisiana, Arkansas, and Mississippi. The land and agronomic constraints are used in all the policy alternatives. Complete mobility of capital and labor among rural areas and between commodities is assumed for each of the four policies. This assumption allows shifts in the location of production, which are more pronounced than would actually be expected.

For each policy alternative, demand equations or restraints for wheat, feed grains, and soybeans are specified for 31 consuming regions. The consuming regions follow state boundaries and encompass the entire continental United States. Domestic demand for each commodity is the sum of its use as livestock feed, industrial inputs, and human consumption in each of the 31 regions. A transportation sector is included in the model to allow the production of a commodity in one region to satisfy the demand for the commodity in another consuming region and to allow production allocation in terms of interregional comparative advantage. In contrast, cotton lint demand is determined only at the national level, and no transportation activities are included for it.

#### **Export Levels**

Foreign trade is one of the major components of the total demand for the four commodities

endogenous to the programming model. The export levels assumed for this study (Table 1) were selected before the marked increase in grain exports experienced in 1972 and 1973. These drastic increases in foreign demand were partly because of changes in international currency exchange rates and partly because of severe crop shortages in other major crop-producing areas of the world. It remains to be seen if the very high export levels of 1972 and 1973 are permanent or transitory in nature. The export levels used in this study, although significantly higher than in 1969, are lower than these recent export levels, and the results and other parameters of this study must be evaluated with this uncertainty regarding exports in mind.

In the past, international trade agreements have been a major determinant of the quantity of American wheat exported. Accordingly, wheat exports are held constant for the four policy alternatives at 651 million bushels, 45 million bushels more than in 1969. For the other three commodities, exports are specified to be highest under the Free Market Alternative. The land Retirement Alternative has the next highest level of exports, Bargaining Power Alternative A the next highest, and Bargaining Power Alternative B the lowest level of exports. Exports of these three commodities are assumed to be inversely related to their farm prices under the model alternatives.

**Table 1. ASSUMED EXPORT LEVELS OF THE MAJOR CROP COMMODITIES FOR EACH POLICY ALTERNATIVE AND 1969 EXPORTS FOR COMPARISON**

Commodity	1969 <sup>a</sup> Exports	1975 Estimated Exports			
		Free Market Alternative	Land Retirement Alternative	Bargaining Power Alternative A	Bargaining Power Alternative B
Wheat (mil.bu.)	606.0	651.0	651.0	651.0	651.0
Feed Grains corn equivalent (mil. tons)	21.2	25.0	20.5	16.0	11.5
Oilmeals soybean equivalent (mil. bu.)	432.6	643.0	550.0	471.0	391.0
Cotton (1000 bales)	2,768.2	3,200.0	2,700.0	2,400.0	2,100.0

<sup>a</sup>Source: for wheat—Wheat Situation, USDA ERS, May 1972.  
for feed grains—Feed Situation, USDA ERS, May 1972.  
for oilmeals—Fats and Oils Situation, USDA ERS, April 1972.  
for cotton—Cotton Situation, USDA ERS, April 1972.

## Prices

The farm prices of the four crop commodities either (a) had to be prescribed for each model, with the analysis designed to attain that level of prices, or (b) were generated as a result of the model. For the Bargaining Power Alternatives, the price levels were established beforehand as a goal of the program, then the degree of supply restraint necessary to generate the price levels was incorporated in the model. For the FMA and LRA, the prices were not prescribed but were generated by the model. Estimated farm prices for the model alternatives are presented in Table 2. The farm prices of the FMA, which are the lowest of the farm policy alternatives, approach 1969 actual prices more nearly than do the prices of the other alternatives. BPAB has the highest farm prices, followed by BPAA and then LRA.

The farm prices in Table 2 are defined as supply prices in that they indicate the price necessary to bring forth the quantity of output specified in each policy alternative. In a perfectly competitive industry, the necessary price is that price which will exactly equal production costs in the highest cost rural area needed. (Here land costs are not a part of the cost of production, but land owners are assumed to receive any residual return from production). In

the short run, then, if demand is greater than that specified for an alternative, market prices can be significantly higher than the supply prices of Table 2.

The supply prices estimated for the FMA provide an indication of the sensitivity of the grain and cotton-producing sectors of American agriculture to foreign trade. Even after adjustment for inflation, these prices are considerably lower than those induced by the high export levels of 1972-1973, indicating the income effect of foreign trade on producers in these sectors.

## Factors Generated from the Input-Output Model

To indicate the secondary impact of each policy alternative, variables were estimated that relate the value of output of each of the four endogenous commodities to the total amount of income generated by these commodities [6]. These variables are referred to as income generation factors and are defined as follows:

*Income generation factor:* the amount by which the total income in the U.S. economy will change because of a one-dollar change in the value of output in a particular sector. (The sector of relevance is a specific farm commodity produced in a specific farm production region.)

**Table 2. ESTIMATED FARM PRICES FOR THE POLICY ALTERNATIVES, WITH 1969 PRICES FOR COMPARISON**

Crop	1969 Prices <sup>a</sup>	1975 Estimated Prices <sup>b</sup>			
		Free Market Alternative (FMA)	Land Retirement Alternative (LRA)	Bargaining Power Alternative A (BPAA)	Bargaining Power Alternative B (BPAB)
Wheat (dol./bu.)	1.24	1.39	1.72	2.05	2.60
Feed grains corn equivalent (dol./bu.)	1.16	1.12	1.42	1.75	2.10
Soybeans (dol./bu.)	2.35	2.46	2.84	3.85	4.45
Cotton (cents/lb.)	21.0	25.0	26.0	35.0	40.0

<sup>a</sup>Source: Demand and Price Situation, USDA ERS, November 1971.

<sup>b</sup>All prices for 1975 are measured in 1970 dollars and do not take into account inflation to 1975.

This change in income has three components: (1) the change in farm income, (2) the consequent change in income resulting from changes in the level of activity in agribusiness industries, and (3) the change in income resulting from variations in the quantity of consumer goods sold to farmers and workers in agribusiness industries.

The income generation factors of Table 3, therefore, indicate the change in income resulting from a one-dollar change in output for each of the four commodities. They show that cotton lint production would have the greatest impact on the economy per dollar of output. (Since cotton is not produced in the Northeast, Lake States, or Northern Plains regions, there are no entries for cotton lint in these regions.) Feed grains production has the next largest income generation factor. The size of the income generation factor for each commodity varies by region according to the nature of the crop and the technology prevailing in the various regions. The income generation factors presented in Table 3 refer to income generated per dollar of farm output. In any particular region, the total amount of income generated by the production of one of the four commodities is also a function of the acreage, yield,

and price of the commodity in that region.

The estimated income generation factors are linked with the value of output of each of the four commodities for each policy alternative. Because of the large changes in farm prices among the farm policies, however, one dollar's worth of output does not reflect the same physical quantity of output for each of the model alternatives. For example, the quantity of output needed to obtain one dollar's worth of farm sales under BPAB is much less than is needed under the FMA because of the higher prices of BPAB. Therefore, the expenditure pattern of farm operators (between production and consumption goods) is expected to vary between the two farm policies. Because data to reflect these changed expenditure patterns are not available, however, only one set of income generation factors is calculated, thus assuming that the expenditure patterns of farm operators is the same for all four policy alternatives.

Indices of income generation under each of the four policy alternatives are calculated to allow a direct comparison among the farm policies.<sup>1</sup> The LRA is considered the base alternative for this analysis. For each region, the income generation value under each of the four model alternatives is divided

<sup>1</sup> Since the factors of Table 3 relate to 1964 original data, secondary income effects are expressed as indices rather than as absolute quantities. This assumes that the relative secondary effects among regions and commodities do not vary from the pattern described by the original input-output data.

**Table 3. FACTORS EXPRESSING THE AMOUNT OF INCOME GENERATED PER DOLLAR OF OUTPUT OF THE MAJOR CROP COMMODITIES BY FARM PRODUCTION REGIONS.**

Region	Income Generation Factor			
	Wheat	Feed grains (dollars generated per dollar of output)	Oilmeal	Cotton lint
Northeast	1.3527	1.5491	1.3853	--
Corn Belt	1.3030	1.4994	1.2372	2.0594
Lake States	1.3494	1.4957	1.2769	--
Appalachian	1.3223	1.4541	1.3241	1.8456
Southeast	1.2364	1.4013	1.1962	1.8735
Delta States	1.0074	1.4608	1.2200	2.0867
Southern Plains	1.1074	1.5184	1.2085	1.9620
Northern Plains	1.2480	1.4379	1.2688	--
Mountain	1.2568	1.4629	1.3146	1.9413
Pacific	1.0443	1.4935	1.3146	2.1632

by its value under the LRA (and multiplied by 100). This forces the income index value of each region to be 100 under the LRA. The income index values under the other three policy alternatives can then be viewed as percentage changes from the LRA. For example, an income index value of 250 for the FMA in a particular region has the following meaning: The amount of income generated by the production of the commodities endogenous to this study under the FMA is 2.5 times that under the LRA. This does not imply that the *total* income of a region differs by a factor of 2.5 — rather, only the income generated by the production of wheat, feed grains, soybeans, and cotton differs by this multiple.

Because we relate value of output to secondary income generation, supply control programs are estimated to have positive secondary income effects even though farm output would be reduced. This reduction in farm output probably would not have positive effects on the small rural community whose main source of employment is processing farm output or supplying farm inputs. The additional farm income associated with a supply control program, however, will generate economic activity in larger rural towns serving as trade centers for the farm community. The income indices developed here relate to this multi-county, trade center concept and should be viewed in this manner. Indeed, supply control programs may have negative rather than positive effects for the small rural village which is more dependent on the quantity of farm output produced than the value of that output.

## QUANTITATIVE RESULTS

The programming model generates quantitative estimates of production by 150 rural areas. For brevity, however, only national results will be presented in this section. Table 4 presents estimates of national production, acreage, net farm income, government payments to farmers, and consumer food expenditures for the four farm policies.

### Direct Results

Although the production of the endogenous commodities under the LRA is similar to 1969 actual production, the harvested acreage required under this alternative is estimated to be much less than in 1969 because of projected 1975 yield increases for the model alternatives. The largest estimate of production for each of the commodities, and therefore the greatest acreage required, occurs under the FMA. Because of its lower farm prices, both domestic and foreign demands for this alternative are higher than for the other policy alternatives. Although the production estimates of the LRA and BPAA are both markedly lower than the FMA estimates, the estimates for BPAA are only slightly lower than the LRA estimates. The higher farm prices of BPAB cause this policy alternative to have lower demand levels. The estimated number of acres harvested under BPAB, 161 million, is 35 million acres fewer than 1969 harvested acreage.

These rather pronounced production differences have direct effects on other economic variables. Estimates for three of these variables, net farm

**Table 4. OUTCOMES FOR SELECTED VARIABLES AT THE NATIONAL LEVEL FOR THE FOUR POLICY ALTERNATIVES WITH 1969 DATA FOR COMPARISON**

Item	1969 actual	1975 Estimates			
		Free Market Alternative FMA	Land Retirement Alternative LRA	Bargaining Power Alternative A BPAA	Bargaining Power Alternative B BPAB
Harvested acreage (thousand acres)	196,025	201,360	184,308	179,832	161,299
Wheat (thousand bushels)	1,460,000	1,661,500	1,417,141	1,538,332	1,432,776
Feed grains (thousand tons)	174,600	181,892	174,250	158,205	150,090
Soybeans (thousand bushels)	1,126,000	1,293,414	1,174,117	1,075,025	974,864
Cotton (thousand bales)	10,000	11,903	11,303	10,703	10,103
Income from government sources (million dollars)	3,794	420	4,555	420	420
Net farm income (million dollars)	16,528	9,190	22,534	21,710	27,176
Consumer food expenditures (million dollars)	95,285	123,738	127,788	131,584	135,851

income, government farm payments, and consumer food expenditures, are presented in Table 4. The lower farm prices and increased production costs of the FMA greatly depress net income to the farming sector. Estimated net farm income under this policy alternative, \$9.2 billion, is \$7.3 billion lower than in 1969 and more than 50 percent lower than the income estimated under the other three policies. This

very low net income estimate would have severe implications for the farming industry, especially for the smaller farm operator. The highest level of net farm income, \$27.2 billion, is estimated for BPAB. The income estimates of BPAA and LRA are nearly equal at a level between that of the FMA and BPAB.

The reduced estimate of net farm income under the FMA is reflected in the lower consumer food



**Table 5. INDICES COMPARING THE AMOUNT OF INCOME GENERATED UNDER THE LAND RETIREMENT ALTERNATIVE WITH THE AMOUNT OF INCOME GENERATED UNDER THE OTHER POLICY ALTERNATIVES FOR THE UNITED STATES AND FOR THE 10 FARM PRODUCTION REGIONS**

Region	Estimated index values in 1975			
	Free Market Alternative	Land Retirement Alternative	Bargaining Power Alternative A	Bargaining Power Alternative B
United States	86	100	119	130
Northeast	29	100	131	142
Corn Belt	90	100	125	136
Lake States	90	100	121	131
Appalachian	79	100	132	147
Southeast	63	100	124	130
Delta States	58	100	123	144
Southern Plains	126	100	105	110
Northern Plains	79	100	109	124
Mountain	66	100	120	128
Pacific	60	100	118	123

expenditures estimated for this alternative. Consumer food expenditures for all four policy alternatives, however, are estimated to be much higher than in 1969 because of population growth to 1975 and because of increasing consumer preferences for higher quality food products. Consumer food expenditures under BPAB, \$136 billion, are the highest of the four policy alternatives and are \$12 billion more than estimated for the FMA.

Although estimated net farm income is very similar for BPAA and the LRA, the estimated consumer expenditures for food under BPAA are \$3.8 billion higher than under the LRA. This differential in food expenditures offsets the estimated \$4.6 billion in government payments to farmers under the LRA. The LRA is the only policy alternative considered in which taxpayers would, through payments for land diversion, make a substantial contribution to net farm income.

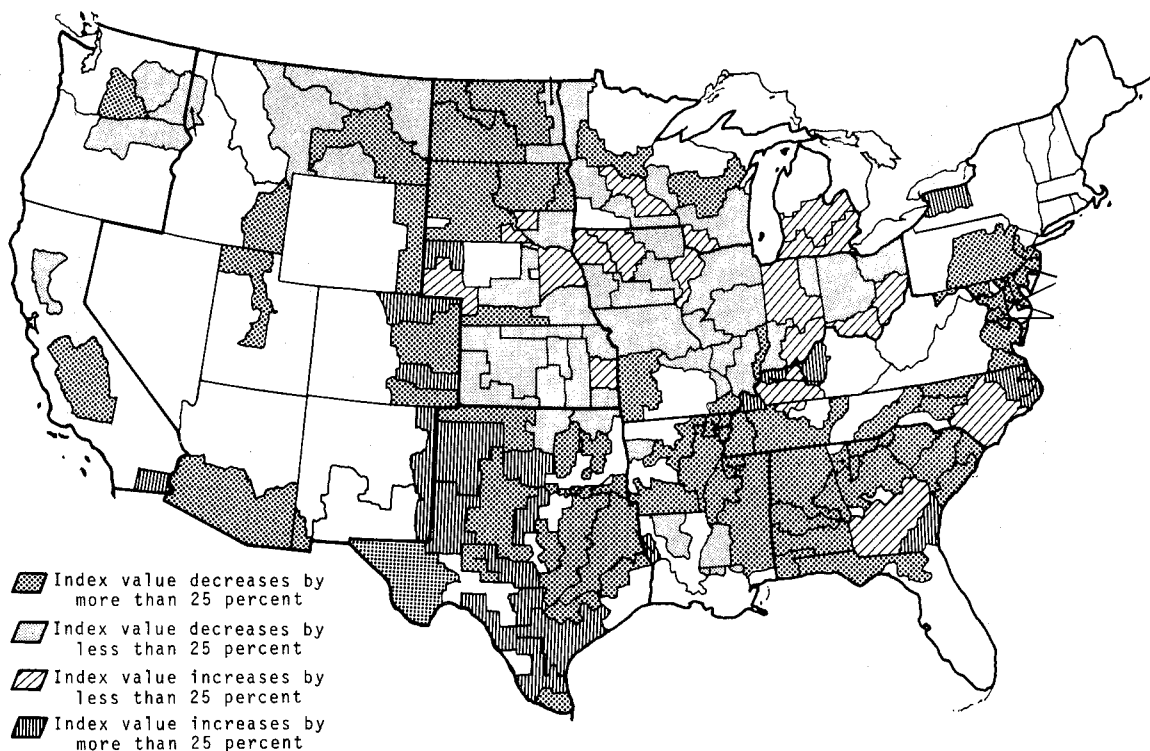
### Secondary Income Results

To indicate the effect different government farm policies can have on the economic activity of rural communities and agriculturally related industries, indices of income generation have been developed for the four policy alternatives. Table 5 presents these index values for the four model alternatives at the national and the 10 farm production region levels. In addition, Figures 2-4 compare the income index value for each of the 150 rural areas under the LRA with

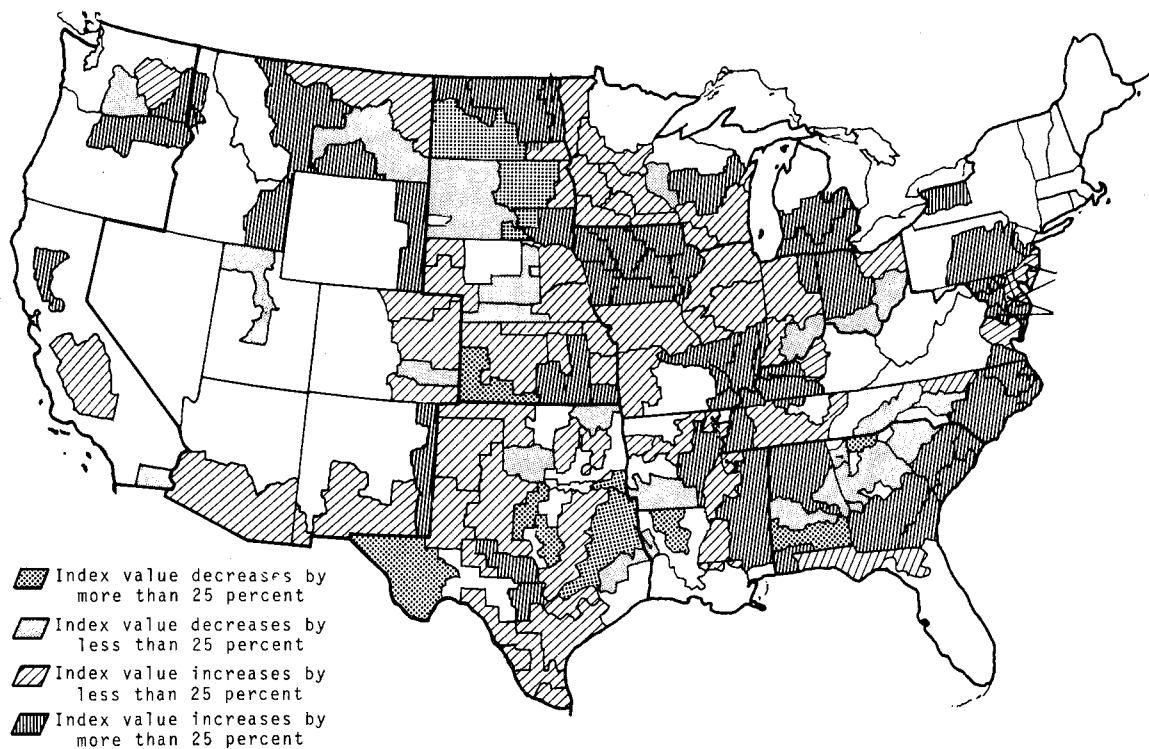
their estimated index value under the other three policy alternatives.

Nationally, the income index under the FMA is estimated to be 14 percent lower than under the LRA. Three farm production regions would have income index values under the FMA, which are higher than the national index value estimated for this alternative, and one of them, the Southern Plains region, would have an index value greater than it would be under the LRA. Relative to the LRA, these three regions would have sizeable increases in production under the FMA. For the Southern Plains region, cotton production under this alternative is estimated to be much greater than under the LRA. The relatively large income generation factor of cotton induces the higher income index value noted for this region.

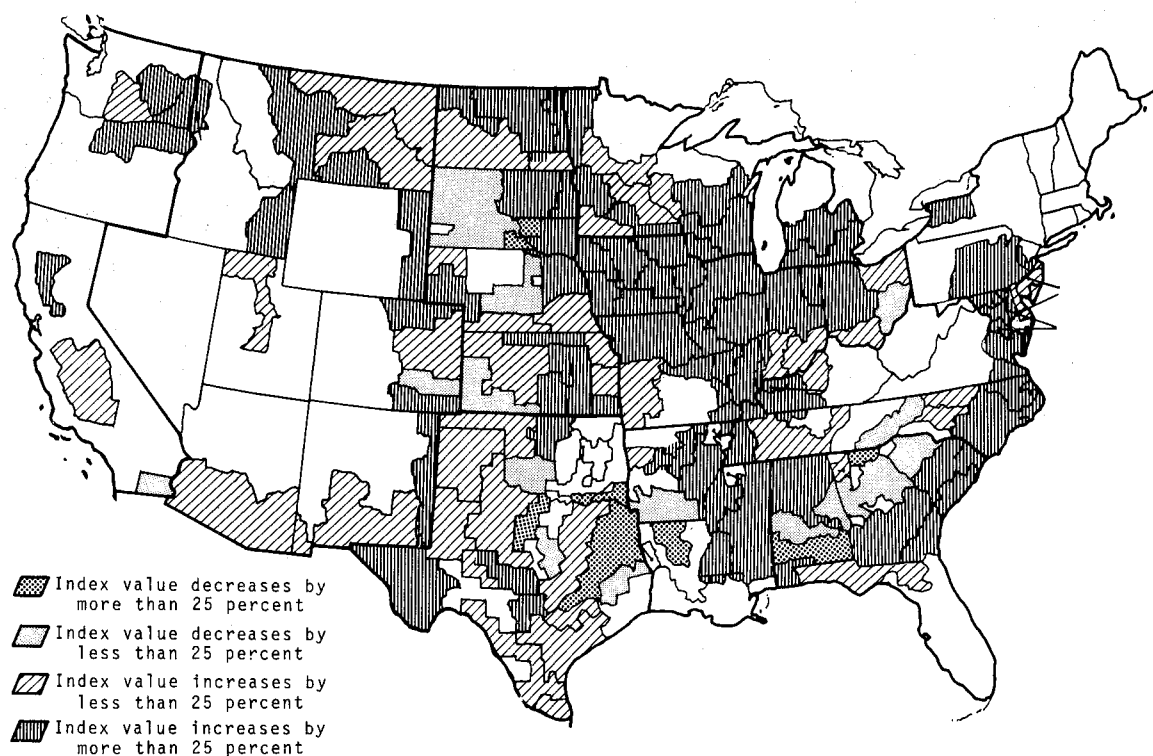
Figure 2 demonstrates that, in comparison to the LRA, the FMA would have negative income generation effects for many of the rural areas of the nation. Only 38 of the 150 rural areas have a higher income index under this alternative. Because of their productive advantages, these areas have sizeable increases in production under the FMA. Many of the areas with larger index values under the FMA would produce much more cotton under that policy alternative than under the LRA because of the constraints associated with the latter alternative. Areas where this occurs are in western Kentucky, east-central Louisiana, the High Plains area of Texas,



**Figure 2. COMPARISON OF THE AMOUNT OF INCOME GENERATED UNDER THE FREE MARKET ALTERNATIVE WITH THE AMOUNT OF INCOME GENERATED UNDER THE LAND RETIREMENT ALTERNATIVE FOR 150 RURAL AREAS**



**Figure 3. COMPARISON OF THE AMOUNT OF INCOME GENERATED UNDER BARGAINING POWER ALTERNATIVE A WITH THE AMOUNT OF INCOME GENERATED UNDER THE LAND RETIREMENT ALTERNATIVE FOR 150 RURAL AREAS**



**Figure 4. COMPARISON OF THE AMOUNT OF INCOME GENERATED UNDER BARGAINING POWER ALTERNATIVE B WITH THE AMOUNT OF INCOME GENERATED UNDER THE LAND RETIREMENT ALTERNATIVE FOR 150 RURAL AREAS**

the Oklahoma-Texas Panhandles, the Low Desert area of California and Arizona, and the High Plains of New Mexico. Other areas that would have income increases because of increased production of commodities other than cotton are in western New York, the Coastal Plains of North Carolina and Georgia, and irrigated feed grains-producing areas in Colorado and Nebraska.

Of the 112 rural areas with lower index values under the FMA, 46 have index values that are within 25 percent of their value under the LRA. These rural areas would produce more under the FMA, but the lower prices of this alternative offset these production increases and generate lower income index values for them. Under the FMA, the location of production can shift to areas with greatest comparative advantage. This allows lower production levels than under the LRA for the remaining 66 rural areas. This decrease in production, when coupled with lower prices, leads to the decreased income index values estimated for these areas.

For the nation and for each of the 10 farm production regions, the income index value estimated for BPAA is higher than for the LRA. Cotton production would increase in the Southeast and Appalachian regions leading to the large income index values estimated for these regions under BPAA. The

Southern Plains region has the lowest income index value of any of the 10 farm production regions and is the only region to have a lower income index value under BPAA than under the FMA. Although the regional income index value is lower under BPAA, it is more evenly distributed throughout the entire Southern Plains region than under the FMA. Under the latter alternative, eight rural areas have index values greater than 100; under BPAA, 15 rural areas have index values of more than 100.

As shown in Figure 3, not all rural areas have higher income index values under BPAA than under the LRA. Thirty-three rural areas have lower income index values under BPAA. Ten of these have index values that are at least 25 percent lower than under the LRA. These areas with decreased index values would have much less production under BPAA because of the lower demands for the four commodities under the latter alternative.

BPAB, characterized generally by large increases in regional income index values, has a 30 percent increase estimated at the national level. This increase is primarily the result of the higher farm prices estimated for this alternative. This figure does not take into account, however, reduced expenditures in other sectors of the economy because of the higher food expenditures associated with this situation. The

income index value estimated for BPAB is the highest of the four policy alternatives for all farm production regions except the Southern Plains region. This region would produce only 40 percent as much cotton under BPAB as under the FMA and, because of the larger income generation factor of cotton, would have a higher income index value under the FMA.

Only 23 of the rural areas in Figure 4 would have lower income index values under BPAB than under the LRA. These lower index values result primarily because of shifts in the output mix in these rural areas — coupled with the lower demands of BPAB. These 23 rural areas would shift from feed grains or cotton production under the LRA to a relatively greater dependence on wheat production under BPAB. The lower income generation factors estimated for wheat production contribute to the decreased income index values estimated for these areas.

### SUMMARY

The purpose of this study is to provide a quantitative illustration of the impacts that government farm policies may have not only on farmers, but also on nonfarm segments of the nation. These results not only indicate the direction and

magnitude of these farm program impacts at the national level, but also emphasize that different government farm policies will have differential impacts among regions. In addition, they indicate that a policy that may have positive income effects at the national level may also have severe negative income effects for particular areas of the nation.

Four government farm policies are examined in this study, and quantitative estimates of the trade-offs of each policy for different economic groups are cited. None of the farm policies was discovered to be clearly superior or clearly inferior to the other three when all groups are considered. The FMA would result in lower food costs for consumers but also is accompanied by lower net farm income estimates. In addition, the implied secondary income effects of this policy alternative are very severe for some areas of the nation. The higher net farm income and increased income to rural areas associated with BPAB must be balanced against the higher food costs generated by this policy alternative. And, although net farm income would be very similar under the LRA and BPAA, the latter alternative implies higher consumer food costs while the former requires large treasury funds to achieve its farm income level.

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