EFFECTS OF REMOVAL OF THE PEANUT PROGRAM ON GEORGIA PRODUCTION AND DISTRIBUTION OF SELECTED FRESH PRODUCE

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It has been conjectured that elimination of the U.S. peanut program would have a profound impact on the supply of fresh produce grown in the peanut producing area of Georgia. Awareness regarding this possibility was brought to bear for two reasons: a) the nature of peanut legislation in 1977 and subsequent years has created a great deal of speculation concerning the possible elimination or phasing out of the program and b) fresh vegetables and fruits produced for the national market and peanuts under the peanut program represent high value crops.

The peanut program began during the great depression of the 1930s in an effort to maintain or increase the price of peanuts received by growers. With modifications over the years, the program was effective in its purpose (McGill). However, in 1977, new peanut legislation was enacted in response to high government costs. A major purpose of that bill was to reduce the quantity of peanuts sold at the high support price, thus reducing treasury costs (Miller). The most recent legislation terminated the acreage allotment provision of past peanut program bills, but retained the peanut quota instrument enacted in 1977 (U.S. Government Printing Office).

The objective of this analysis is to determine the impact of discontinuing the peanut program (Carley; Fleming and White; Little et al.) relative to the national distribution of fresh produce in late spring, and the production of produce in the peanut-growing area of Georgia. The hypothesis to be "tested" is that if the peanut program is eliminated, other high value crops in Georgia, such as fresh vegetables and fruits, would become more competitive, resulting in increased acreage and supplies, causing a greater national market share for Georgia produce and somewhat lower prices. The hypothesis is "tested" by comparing a base model solution to an adjusted model solution.

The analysis employs a spatial equilibrium model of 13 U.S. produce markets, which includes activity analysis for the Georgia region, incorporating a measure of risk. The model is couched in a quadratic programming framework as it involves multiproducts, multiregions, and linear demand functions.

Representative produce commodities pertinent to this study include watermelons, tomatoes, green peppers, cucumbers, and sweet corn. These commodities were selected because of indicated growth potential as reflected in percapita consumption and population statistics (Johnson).

Other commodities included in the analysis that compete directly with selected produce crops include soybeans, field corn, and peanuts. The relevant national market window for Georgia and competing regions common to the selected produce crops occurs in late spring (June) as shown from AMS, USDA unloads. Thus, the relevant area of production in Georgia is in the South, which largely corresponds to the peanut growing area.

THE PROGRAMMING MODEL

The basic quadratic programming model used in this study is derived from the work of Takayama and Judge. An adaption of the model, which maximizes net social payoff[1] in matrix-vector notation, is as follows:

$$(1) \quad \text{OBJ: Max NSP }(Y,X) = [\theta', T'] \begin{bmatrix} Y \\ X \end{bmatrix} - 1/2\, [Y'X'] \begin{bmatrix} \Sigma & 0 \\ 0 & 0 \end{bmatrix} \begin{bmatrix} Y \\ X \end{bmatrix}$$

$$(2) \quad \text{s.t.} \begin{bmatrix} I & -G \\ & \underline{A^*} \\ & C' \end{bmatrix} \begin{bmatrix} Y \\ X \end{bmatrix} \leqslant \begin{bmatrix} 0 \\ \underline{S^*} \\ S \end{bmatrix}$$

and

$$(3) \quad (Y'X') \geqslant 0'$$

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[1] Net social payoff, the net of consumer and producer surplus, has been used often to formulate the objective function in interregional competition models (Takayama and Judge). The optimizing framework used is designed for a competitive market structure that is largely characteristic of the fresh produce industry. Since the model encompasses interregional trade among multiple regions, an econometrics approach was not seen as pragmatic. Data restrictions prohibit the identification of such a framework. Hammig et al. allude to this problem in a footnote.

where

- NSP = Net Social Payoff,
- Y = a vector of aggregate demand activity levels in 100 cwt,
- X = a vector of interregional activity levels in 100 cwt,
- θ = a vector of intercepts of price dependent demand equations,
- T = a vector of costs per 100 cwt, including variable and risk costs of production and transportation costs,
- Σ = a nonnegative diagonal submatrix of demand coefficients, implying no cross price flexibilities,[2]
- I = an identity submatrix,
- $-G$ = a submatrix including elements of -1 and 0,
- A* = a submatrix including elements of 1 and 0,
- C = a vector of technical coefficients in acres per 100 cwt,
- S* = a vector of fixed supplies in 100 cwt for all regions except Georgia and the peanut constraint in 100 cwt for Georgia, and
- S = the availability of land (immobile primary commodity) in South Georgia in acres.

The model maximizes the area under the demand functions minus all costs subject to the constraint set. The constraints incorporated in the model are of the following meaning and form:

a. The quantity actually consumed, say Y, is less than or equal to the quantity shipped from all supply regions, including the region of destination. Thus,

$$(4) \quad IY - GX \leqslant 0,$$

b. Fixed supplies, S* in this analysis, are greater than or equal to supplies shipped. Thus,

$$(5) \quad A^*X \leqslant S^*,$$

c. Immobile primary commodity allocation constraint:

$$(6) \quad C'X \leqslant S, \text{ and}$$

d. Nonnegative constraint:

$$(7) \quad (Y'X') \geqslant 0'$$

MODEL COMPONENTS

Demand

OLS was used to estimate demand functions for selected fresh produce items. The general form of the relationship for a given commodity, consuming center, year, and month is

$$(8)\ P = f(Q, I, \underline{D})$$

where P is nominal price per hundred cwt, Q is quantity in hundred cwt, I is nominal income per capita, and $\underline{D}$ is a vector of dummy variables.[3] Dummy variables were added to equation (8) to allow prices to vary by consuming center, month, and year; to allow the relationship between P and Q to vary by consuming center and month; and to allow the relationship between P and I to vary by market. All coefficients in the final equations were significant at the 90-percent level or above; most were significant at the 99-percent level. The R^2s for the estimated demand equations are: 0.78 for watermelons, 0.57 for tomatoes, 0.77 for green peppers, 0.67 for cucumbers, and 0.74 for sweet corn. Derived demand functions used in the quadratic programming model are given in Table 1 by market and commodity.

Data used to estimate demand functions for commodities and markets are from the AMS-USDA and the Department of Commerce for June–September, 1972–75 and June–August, 1976. Suitable quantity data after 1976 are not available.

Demand functions for field corn and soybeans were estimated for Georgia using OLS. Data for 1963–77 from *Agricultural Statistics* and *Survey of Current Business* were used to estimate relationships of the following form:

$$(9)\ P = f(Q, S, C, I)$$

where P is deflated price per hundred cwt, Q is quantity in hundred cwt, S is stock at the end of the year, C represents quantity in hundred cwt of the competing crop, and I is deflated per-capita income. The R^2 for the field corn demand relation is 0.59, while for the soybean relation, it is 0.63.[4] The derived demand function for field corn for use in the quadratic programming model is

$$(10)\ P = 538.41 - 0.000084Q$$

and for soybeans, the function is

$$(11)\ P = 1163.75 - 0.002556Q.$$

[2] The data did not yield reliable estimates of cross price flexibilities.

[3] The time dummy variables account for changes in the price index. Nevertheless, estimations represented by equation (8) were also accomplished using deflated prices and income, yielding inferior fits.

[4] Estimations of demand functions for field corn and soybeans were accomplished also by adding a feeding variable and by substituting a feeding variable for per-capita income. Fits as described in the text were superior. Feeding variables were grain-consuming animal units for the field corn equation and high protein animal units for the soybean equation.

TABLE 1. Price Dependent Demand Functions for Selected Produce Items in Thirteen Markets, June 1975

Markets	Watermelons		Tomatoes		Green Peppers		Cucumbers		Sweet Corn	
	Intercept	Slope	Intercept	Slope	Intercept	Slope	Intercept	Slope	Intercept	Slope
Atlanta	618.84	-0.0123	4,320.54	-0.5046	2,958.94	-1.1196	1,902.16	-0.1898	1,453.20	-0.2649
Birmingham	572.39	-0.0123	4,254.83	-0.5046	2,865.81	-1.1196	1,870.64	-0.1898	1,460.91	-0.2649
Chicago	1,172.93	-0.1314	4,714.26	-0.5046	3,516.91	-1.1196	2,091.00	-0.1898	1,406.08	-0.0578
Cleveland	770.69	-0.0057	4,085.20	-0.2172	3,268.16	-0.5773	2,251.52	-0.8793	1,546.48	-0.1242
Columbia	556.56	-0.0123	4,317.96	-0.5046	2,955.28	-0.1196	1,547.37	-0.1898	1,454.92	-0.2649
Dallas	615.80	-0.0123	4,454.23	-1.7785	3,430.35	-1.1196	1,966.28	0.1898	1,799.51	-1.7610
Detroit	860.82	-0.0060	4,832.44	-0.0235	3,677.52	-1.4065	2,018.03	-0.0762	1,587.22	-0.1188
Los Angeles	892.50	-0.0123	4,707.64	-0.5046	5,520.68	-4.5928	1,478.47	-0.1898	1,687.94	-0.2649
Louisville	673.39	-0.0123	3,803.06	-0.5046	3,068.69	-1.1196	1,939.30	-0.1898	1,855.94	-2.9377
Miami	765.46	-0.0123	4,527.94	-0.5046	3,252.87	-1.1196	2,001.64	-0.1898	1,406.50	-0.2649
New Orleans	678.26	-0.0123	4,224.89	-0.5046	3,142.62	-1.1196	1,856.28	-0.1898	1,467.37	-0.2649
New York	822.66	-0.0023	4,536.10	-0.0685	3,311.46	-0.3075	1,972.71	-0.0332	1,471.92	-0.0452
St. Louis	836.84	-0.0055	4,581.96	-0.2116	3,940.62	-7.0472	2,033.21	-0.0858	1,347.54	-0.1053

The quantity coefficient for field corn was significant only at the 50-percent level, yet it did have the correct sign, while for soybeans, the quantity coefficient was significant at the 99-percent level.

In order to examine the impact of the elimination of the federal peanut program in Georgia, a coefficient was needed for the peanut demand function. The coefficient was derived from a price flexibility estimate obtained from an analysis by Mairo of the world market for U.S. peanuts. From a price flexibility of −1.8518, a demand function for Georgia peanuts was derived:

(12) $P = 5646.5 - 0.02124Q.$

Supply

Supplies of selected fresh produce were fixed for all regions except Georgia, where produce and row crops were allowed to compete for suitable land.[5] Table 2 shows supplies by region and commodity as derived from unload data for the base period of the model.

The model does not examine interregional competition of peanuts but, rather, isolates production in Georgia allowing competition among selected produce crops—peanuts, field corn, and soybeans. The model simplification regarding peanuts does not appear to be a severe abstraction since peanut production in Georgia enjoys a competitive advantage as reflected in a comparison of the costs of producing peanuts in the three main producing areas of the U.S. (Committee on Agriculture, Nutrition, and Forestry, United States Senate). Thus, if the peanut program were terminated, it is not likely that peanut production would decline in Georgia as a result of competition among peanut producing regions. Rather, such a decline in peanut production would result from a reduced ability to compete for available cropland in south Georgia.

Constraints

An estimate of suitable cropland in south Georgia of 3,396,034 acres was obtained from census data. Table 3 shows land contraint coefficients in acres per 100 cwt from crops considered in the model. In addition, information used in the derivation of land constraint coefficients is presented in Table 3.

For the base model, peanut production was constrained. Peanut production in Georgia was limited to 172,618 hundred cwt, which corresponds to the peanut allotment restriction imposed in 1975.

Costs

Transportation costs are presented in functional form and involve produce commodities only because interregional competition of row crops is not within the scope of this study. Table 4 shows the transportation cost relationships employed in the model by selected commodity. Transportation cost per hundred cwt is a function of distance (miles) from city to city, where each

[5] The model, of course, would have been less of an abstraction from reality had activity analysis been allowed in all pertinent regions; however, resource restrictions would not permit such detail. Thus, because of similar crop mixes, it seems likely that crop responses in the peanut growing area of Georgia would also be representative of the adjacent peanut growing areas of Florida and Alabama.

TABLE 2. Fixed Supplies of Selected Fresh Produce Items for Thirteen Regions in June, 1975

Regions[a]	Watermelons	Tomatoes	Green Peppers	Cucumbers	Sweet Corn
			(100 cwt)		
Atlanta[b]	1,161.00	332.00	161.30	157.80	141.60
Birmingham	112.50	180.00	5.12	30.80	105.27
Chicago	0.00	12.00	0.00	13.47	5.44
Cleveland	0.00	336.00	0.00	36.57	1.81
Columbia	265.50	2,744.00	358.40	2,340.80	152.46
Dallas	4,027.50	354.00	364.80	186.73	79.86
Detroit	0.00	4.00	0.00	0.00	0.00
Los Angeles	629.00	1,392.00	189.44	654.50	943.80
Louisville	0.00	46.00	5.12	13.48	0.00
Miami	15,601.50	1,492.00	1,041.92	1,027.95	5,386.92
New Orleans	22.50	124.00	409.60	165.55	21.78
New York	0.00	368.00	7.68	292.60	5.44
St. Louis	0.00	138.00	3.84	19.25	78.05

[a] Cities listed represent regions of origin which in some cases encompass several states.

[b] Fixed supplies were not imposed on the model for the Atlanta region; however, these were the actual supplies originating in Georgia in the base period of analysis, June 1975.

TABLE 3. Land Constraint Coefficients and Source Information by Crop for South Georgia

Crops	Yield[a] (100 cwt/ acre)	Land[b] Constraint Coefficient (Acre/ 100 cwt)	Unload[c] Production Ratio	Adjusted[d] (Acre/ 100 cwt)
Produce Crops				
Watermelons	1.00	1.00	0.4090	2.44
Tomatoes	0.65	1.53	0.3953	3.87
Green Peppers	0.94	1.06	0.6804	1.56
Cucumbers	1.03	0.97	0.1881	5.16
Sweet Corn	1.06	0.95	0.2139	4.42
Row Crops				
Field Corn	0.31	3.25	–	3.25
Peanuts	0.33	3.03	–	3.03
Soybeans	0.15	6.68	–	6.68

[a] Yields from produce crops were obtained from data reported in *Agricultural Statistics*, and yields for row crops were extracted from *Georgia Agricultural Facts*.
[b] Land constraint coefficients are the reciprocals of respective yields.
[c] Unload/Production ratios represent the total unload quantities shipped, originating in Georgia divided by total quantities produced in Georgia in June, 1975.
[d] Land constraint coefficients were adjusted by dividing the land constraint coefficients by respective unload/ production ratios.

city is the focal point for a given region of origin and/or destination.

Production costs, including total variable and risk costs, are presented in Table 5. The method

TABLE 4. Transportation Cost Functions for Cost per Hundred Hundredweight for Selected Commodities

Commodity	Intercept	Slope	R^2
Tomatoes	100.000	0.293	a
Cucumbers	132.000	0.140	a
Green Peppers	96.550 (4.67)	0.261 (10.43)	0.65
Sweet Corn	178.000 (11.12)	0.073 (9.25)	0.98
Watermelons	116.290 (114.01)	0.160 (160.00)	0.99

[a] Equations for tomatoes and cucumbers were furnished by the ERS, USDA. Data used to estimate transportation cost functions for green peppers, sweet corn, and watermelons were obtained from the AMS, USDA. Note: t values are given in parentheses below respective coefficients. Transportation costs are for shipment by truck.

TABLE 5. Production Costs of Selected Fresh Produce and Row Crops in South Georgia

Crops	Total[a] Variable Cost ($/100 cwt)	Risk[b] Coefficient (pct)	Risk[c] Cost ($/100 cwt)	Production[d] Cost Component ($/100 cwt)
Produce Crops				
Watermelons	305.00	33.99	103.66	408.66
Tomatoes	1,922.60	36.41	700.06	2,622.67
Green Peppers	962.77	32.73	315.13	1,277.91
Cucumbers	764.07	31.79	242.91	1,006.99
Sweet Corn	535.35	26.55	142.15	677.50
Row Crops				
Field Corn	344.43	23.54	81.08	425.51
Peanuts	899.09	25.07	225.40	1,124.49
Soybean	561.35	16.90	94.87	656.21

[a] Source: Enterprise Budgets, Georgia Cooperative Extension Service, 1978.
[b] The risk coefficient is the coefficient of variation, obtained from price variability of produce crops and yield variability of row crops.
[c] Risk Cost = Total Variable Cost × Risk Coefficient.
[d] Production Cost Component = Total Variable Cost + Risk Cost.

used to capture risk is quite similar to that of Adams et al. The risk cost for each crop is the product of variable cost and associated coefficient of variation (risk coefficient). Price variability was used for estimating risk coefficients of fresh produce items, while yield variability was used for row crops.[6]

BASE SOLUTION

The model was used to track, as closely as possible, actual cropping patterns in south Georgia and shipping patterns from region to region in

[6] To be consistent in evaluating the elimination of the peanut program, computation of the risk coefficients for row crops encompassed only yield variability, while computation of the risk coefficients for produce crops involved only price variability. A source of distortion was avoided by not using price variability in computing the risk coefficient for peanuts. In addition, yield data for some of the produce crops were not reliable.

the base period, June 1975. As a starting point, production costs for south Georgia for each produce commodity were added to the transportation costs associated with respective commodities for all regions. Following solution of the model, costs were adjusted by the dual values of shipments and price differences from region to region to allow the model to track actual patterns and flows of the base period.

EFFECTS OF REMOVAL OF THE PEANUT ALLOTMENT PROGRAM IN SOUTH GEORGIA

Fresh Produce Shipping Pattern and Price Changes

In the base model, the price of peanuts is set according to the regulations of the peanut program. The model was then changed to allow a downward sloping demand curve for peanuts. Results of the analysis are summarized in Table 6.

Comparison of the base model with the adjusted model reveals changes in some capacity for all five of the fresh produce items examined. Quantities of watermelons, tomatoes, green peppers, cucumbers, and sweet corn consumed in the Atlanta market, originating in Georgia, were reduced by 153.02, 5.91, 1.08, 20.97, and 12.87 hundred cwt, respectively. The percentage decreases for each of these produce items were 44.68, 1.78, 3.99, 38.69, and 9.47, respectively.

The decline in watermelon and cucumber consumption in the Atlanta market as reflected in

TABLE 6. Model Solution after Removal of the Peanut Program in Georgia, Watermelons, Tomatoes, Green Peppers, Cucumbers, and Sweet Corn[a]

Destination	Watermelons		Tomatoes		Green Peppers		Cucumbers		Sweet Corn	
	Quantity (100 cwt)	Diff. (pct)	Quantity (100 cwt)	Diff. (pct)	Quantity (100 cwt)	Diff. (pct)	Quantity (100 cwt)	Diff. (pct)	Quantity (100 cwt)	Diff. (pct)
Atlanta										
Consumption	189	-44.68	326	-1.78	26	-3.99	33	-38.69	123	-9.47
Price ($/100 cwt)	617	0.31	4156	0.07	2930	0.04	1896	0.21	1421	0.24
Birmingham										
Consumption	632	-6.05	96	0.00	16	-6.46	31	0.00	130	0.00
Price ($/100 cwt)	565	0.09	4206	0.00	2848	0.04	1865	0.00	1426	0.00
Chicago										
Consumption	1684	-0.23	494	0.00	162	-0.66	447	-0.60	492	0.00
Price ($/100 cwt)	952	0.05	4465	0.00	3336	0.04	2006	0.03	1378	0.00
Cleveland										
Consumption	1753	-4.77	664	0.00	185	-1.12	400	-0.14	460	0.00
Price ($/100 cwt)	761	0.07	3941	0.00	3161	0.04	1900	0.03	1489	0.00
Columbia										
Consumption	1843	-2.16	884	0.00	39	-2.69	197	-1.36	181	0.00
Price ($/100 cwt)	534	0.10	3872	0.00	2912	0.04	1510	0.03	1407	0.00
Dallas										
Consumption	988	-3.96	160	0.00	62	-1.72	96	-2.73	200	0.00
Price ($/100 cwt)	604	0.08	4170	0.00	3361	0.04	1948	0.03	1448	0.00
Detroit										
Consumption	2014	-3.98	288	0.00	155	-0.55	357	-1.86	471	0.00
Price ($/100 cwt)	849	0.06	4826	0.00	3460	0.03	1991	0.03	1531	0.00
Los Angeles										
Consumption	2170	-1.84	628	0.00	296	-0.09	632	-0.43	1071	0.00
Price ($/100 cwt)	866	0.06	4391	0.00	4162	0.03	1359	0.04	1404	0.00
Louisville										
Consumption	250	-14.01	168	0.00	23	-4.39	31	-8.05	123	0.00
Price ($/100 cwt)	670	0.08	3718	0.00	3043	0.04	1933	0.03	1493	0.00
Miami										
Consumption	186	-17.93	256	0.00	64	-1.64	81	-3.24	207	0.00
Price ($/100 cwt)	763	0.07	4399	0.00	3181	0.04	1986	0.03	1352	0.00
New Orleans										
Consumption	596	-6.39	136	0.00	44	-2.38	66	-3.95	185	0.00
Price ($/100 cwt)	671	0.08	4156	0.00	3094	0.04	1844	0.03	1418	0.00
New York										
Consumption	7828	-2.71	3227	0.00	1326	-0.29	2289	-0.67	2775	0.00
Price ($/100 cwt)	805	0.06	4315	0.00	2904	0.04	1897	0.03	1346	0.00
St. Louis										
Consumption	715	-11.29	192	0.00	76	-0.22	157	-3.67	486	0.00
Price ($/100 cwt)	833	0.06	4541	0.00	3405	0.04	2020	0.03	1296	0.00

[a] Note: Diff. = (New Model Solution − Base Solution)/ Base Solution.

Table 6 would not be so dramatic in reality, because approximately 72 percent of all watermelons and nearly half of all cucumbers shipped to the Atlanta market in the base period originated in Florida or elsewhere. Produce shipments from Florida to Atlanta are not reflected in the base model, because the model would allow only shipments within Georgia, or from Florida to Atlanta, not both. The decision to retain shipments of watermelons within Georgia was based on the objective to examine the competitive potential of fresh produce from southeastern states other than Florida. A decision either way would not have changed the value of the objective function because cost discounting was required before shipments from Florida to Atlanta would enter the model solution.

Shipments from the Atlanta region to the New York market were also reduced for watermelons, green peppers, and cucumbers. The reductions were 769.00 hundred cwt, 100.00 percent, for watermelons; 14.81 hundred cwt, 19.48 percent, for green peppers; and 48.81 hundred cwt, 100.00 percent, for cucumbers.

Regional shipments of tomatoes and sweet corn were unaffected in Georgia by the simulated removal of the peanut program. Virtually all markets for watermelons, green peppers, and cucumbers experienced at least a slight reduction in consumption and a negligible increase in price.

Acreage Changes

Elimination of the peanut program results in a dramatic decline in overall produce acreage and a small increase in overall row crop acreage in Georgia (Table 7). Reductions for watermelons and cucumbers were substantial, while reductions for green peppers and sweet corn were quite noticeable. Little change was detected for tomatoes. A small increase in row crop acreage is attributed to a significant increase in peanut acreage, as field corn and soybeans showed declines to some extent.

TABLE 7. Model Solution for Crop Acreage after Removal of the Peanut Program in Georgia

Commodity	Acres	Percent Diff.[a]
Production Crops		
Watermelons	462	-82.95
Tomatoes	1,263	-1.78
Green Peppers	136	-15.41
Cucumbers	171	-67.42
Sweet Corn	544	-9.47
Subtotal	2,577	-51.25
Row Crops		
Field Corn	1,710,896	-5.36
Peanuts	636,200	21.64
Soybeans	1,046,362	-1.27
Subtotal	3,393,457	0.08
Total	3,396,034	0.00

[a] Diff. = (Adjusted Acreage − Base Acreage)/Base Acreage.

Change in Value of Welfare Function

The objective function of the model represents the integration of the producing and consuming sectors through price-determination equations and costs. A model solution is "optimal" in the sense that it represents the maximum value of the welfare function given the subjectively imposed constraint set. Thus, given the partial equilibrium framework, a model solution represents what is "efficient" with respect to production and distribution of model commodities.

The value of the welfare function for the base model is about $3.527 billion while the value for the model depicting no peanut program is approximately $3.859 billion (1975 dollars), representing a 9.39-percent increase.[7]

CONCLUSIONS

The findings of this study do not support the hypothesis, which was: given the elimination of the peanut program, fresh produce originating in Georgia would show gains in the national market because such crops would become more competitive with peanuts as peanut acreage increased, yielding a substantial fall in price. Increased peanut acreage was expected to come from other row crop acreage. However, some of the increase came from produce acreage, causing large reductions in watermelon and cucumber acreage.

The fact that Georgia enjoys a cost of production advantage among peanut producing areas of the U.S. implies that if the peanut program were eliminated and if the model allowed examination of interregional competition of peanut production, peanut acreage in Georgia might be even greater than that reflected in this study. Moreover, the impact on produce acreage in Georgia likely would not be lessened.

The model used in this study is based on several simplifying assumptions, thus, it is not a true reflection of reality. Nevertheless, in general, the model does facilitate the determination of the direction of changes and, to a lesser extent, the magnitude of such changes, given certain, rather plausible, circumstance.

Findings of increased peanut acreage with a lower price must be viewed with caution, because the demand function for peanuts used in the model was derived from the price elasticity of

[7] Although this crude measure of welfare, net social payoff, is used by some analysts to differentiate between or among alternative scenarios (Adams et al.; Dahlgran; Hammig et al.), it is not without its critics. Mann, for example, surveys several works that question the usefulness of measures of welfare in evaluating programs.

foreign demand for Georgia peanuts, which was estimated with the U.S. peanut program in effect, thus allowing the possibility for distortion. Notwithstanding, it might prove fruitful for policymakers and the peanut producers community to be aware of the findings of this inquiry.

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