CORNELL

AGRICULTURAL ECONOMICS

STAFF PAPER

RECOGNIZING THE EFFECTS

OF GOVERNMENT PROGRAMS IN DEVELOPING

COST AND RETURNS STATEMENTS

BY B. F. STANTON

MARCH 1991   No. 91-7

RECOGNIZING THE EFFECTS OF GOVERNMENT PROGRAMS IN DEVELOPING COST AND RETURNS STATEMENTS*

Government programs have important, often unrecognized, effects on both costs and returns for many commodities. These effects range from obvious ones such as deficiency payments for wheat and corn, to more subtle ones such as implicit subsidies for irrigation water or agricultural assessments that reduce real estate taxes. It is clearly difficult to disentangle and correctly identify these effects, but as analysts we should surely make some effort to recognize them. These efforts should be quantitative whenever possible, but at least qualitative for the important ones which seem to defy consistent procedures for measurement. This is particularly important in making comparisons across production regions where different cost structures may apply.

At the outset, it is also important to salute the consistent, careful work of economists at ERS in their annual efforts since 1973 to meet the mandates of Congress in preparing annual estimates of production costs for key commodities by region across the United States. These have provided a national frame of reference for nearly all discussions of production costs for individual commodities. Methods used have been clearly identified; we have all benefitted from ERS efforts on these basic annual series.

Effects of Government Programs on Returns

Government commodity programs clearly have important effects on farmers' planting and harvest decisions. These programs influence both production and prices, and hence both gross and net farm incomes. The aggregate level of direct government payments to farmers over the last two decades is indicated in Table 1. As a proportion of total cash farm receipts in the United States, payments are a relatively small part, in most years less than 10 percent of the total. But for major program commodities they are much more significant. The cover illustration of the December 1990 Agricultural Income and Finance Situation and Outlook Report, Figure 1, provides current perspective for food grains, feed grains, and cotton where as much as 30% of the total come from government payments.

---

*This paper was prepared for presentation at a national conference on "Economic Accounting for Commodity Costs and Returns," February 20-21, 1991, sponsored by the Farm Foundation, The Economic Research Service, Federal Extension Service, and the American Agricultural Economic Association.

Table 1.   Direct Government Payments to Farmers
                     Major Programs, United States, 1970-89

| Feed Year	Grains	Wheat	All Cotton	Other	Total
		- Million	Dollars -		
1970	$1,504	$ 871	$ 919	$ 423	$ 3,717
1971	1,054	878	822	391	3,145
1972	1,845	856	813	448	3,962
1973	1,142	474	718	273	2,607
1974	101	70	42	317	530
1975	279	77	138	313	807
1976	196	135	108	295	734
1977	187	887	130	614	1,818
1978	1,172	963	127	768	3,030
1979	494	114	185	583	1,376
1980	382	211	172	520	1,285
1981	243	625	222	843	1,933
1982	713	652	800	1,327	3,492
1983	1,346	864	662	6,424 *	9,296
1984	367	1,795	275	5,994 *	8,431
1985	2,861	1,950	1,106	1,788	7,705
1986	5,158	3,500	1,042	2,114	11,814
1987	8,490	2,931	1,204	4,122	16,747
1988	7,219	1,842	924	4,495	14,480
1989	3,140	603	1,184	5,947	10,874

*PIK payments not distributed to individual crops.

Source: ERS, ECIFS 8-1.

FIGURE 1

Government Payments Bolster Low Wheat Prices

Payments as percent of receipts + payments

Legend: ■ 1989 ■ 1990 ☐ 1991

Categories: Food grains, Feed grains, Cotton
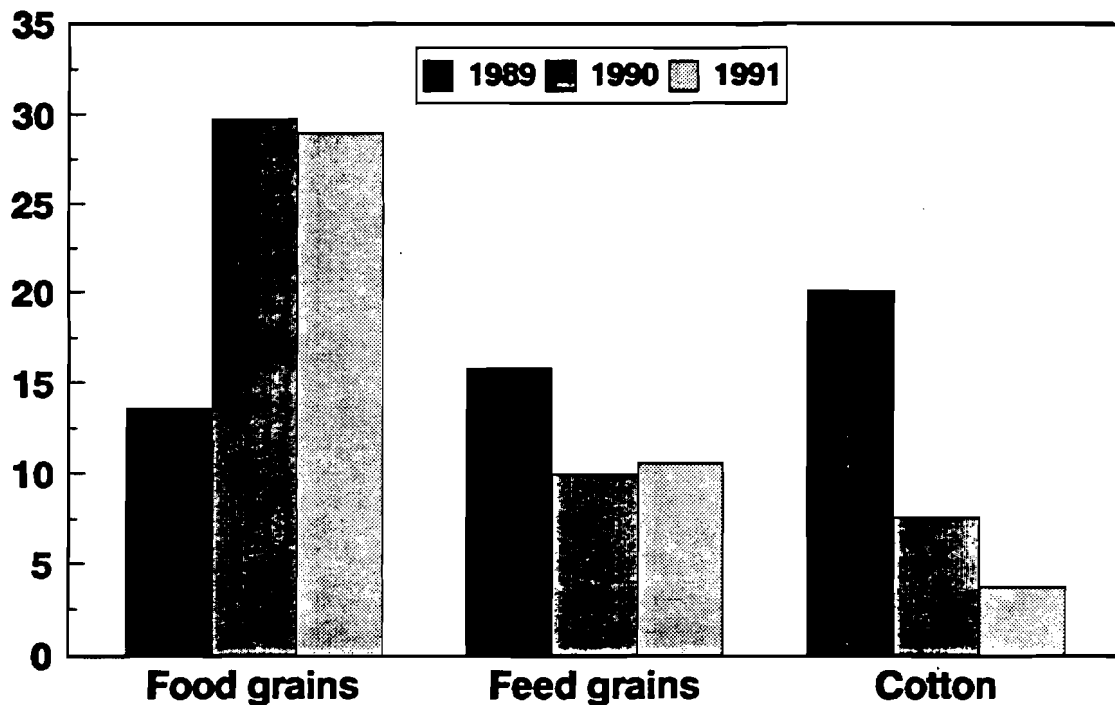
1990-91 forecast.

In a state such as North Dakota, where government programs are particularly important, the impact of direct payments is more readily evident. The 1987 Census of Agriculture collected data on government payments and market sales and summarized the effects of including payments with sales on size distributions in Volume 2, Part 5. The effect of including government payments along with market sales on changes in the size distributions is presented in tables 2 and 3. On farms where deficiency payments were received for most of the crops produced, the effects on gross income were important. Often they turned what would have been negative net incomes into positive ones.

Table 2. Impact of Adding Government Payments
to Market Sales on
Size Distribution of Farms, North Dakota, 1987

Size Class	Market Sales Only	Number of Farms Sales Plus Government Payment	Difference
		- Farm Numbers -	
$1,000,000 or more	46	53	+ 7
500,000 - 999,999	200	264	+ 64
250,000 - 499,999	846	1,270	+ 424
100,000 - 249,999	4,855	6,646	+1,791
50,000 - 99,999	7,808	8,414	+ 606
			(+2,892)
25,000 - 49,999	7,725	7,120	- 605
10,000 - 24,999	6,817	5,810	-1,007
5,000 - 9,999	2,982	2,444	- 538
2,500 - 4,999	1,750	1,376	- 374
Less than 2,500	2,260	1,892	- 368
			(-2,892)
Total Farms	35,289	35,289	

Source: Census of Agriculture, 1987, Volume 2, Part 5.

Table 3. **Impact of Adding Government Payments
to Market Sales on
Total Values by Size Class, North Dakota, 1987**

Size Class	Market Sales Only	Total Value Sales Plus Government Payment	Difference
		- Millions of Dollars-	
$1,000,000 or more	$ 213.2	$ 89.8	$+ 53.7
500,000 - 999,999		177.1	
250,000 - 499,999	279.4	420.2	+140.8
100,000 - 249,999	714.6	993.1	+278.5
50,000 - 99,999	554.1	605.4	+ 51.3
25,000 - 49,999	280.8	262.6	- 18.2
10,000 - 24,999	115.4	99.4	- 16.0
5,000 - 9,999	21.8	18.1	- 3.7
2,500 - 4,999	6.5	5.1	- 1.4
Less than 2,500	2.3	1.9	- 0.4
Total Value	2,188.2	2,672.8	+484.6

Source: Census of Agriculture 1987, Volume 2, Part 5.

Consistent Treatment in Cost and Returns Statements

Cost and returns statements for wheat and peanuts are both included in the annual publication, Economic Indicators of the Farm Sector: Costs of Production. In the case of wheat the gross value of production is estimated based on harvest month market prices; the value of secondary products, such as straw, is included as well. Since 1986 (ECIFS 6-1) it has been explicitly noted that direct government payments are excluded from the estimate of gross value of production.

In the case of peanuts, procedures followed are the same as those for all of the other grains and oilseeds. Yet, there is one strikingly different result in the final economic calculation, "residual returns to management and risk" (Table 4). There is a large positive value per acre for peanuts, unlike all those calculated for the other grain crops.

Table 4. **Residual Returns to Management and Risk**
ERS Cost of Production Statements, 1985-87

| Crop | Residual Returns to Management and Risk | | |
| | 1985 | 1986 | 1987 |

	- Dollars Per Planted Acre -		
Corn	$- 24	$- 73	$- 51
Grain Sorghum	- 23	- 42	- 39
Barley	- 42	- 47	- 40
Oats	- 33	- 50	- 30
Wheat	- 29	- 44	- 37
Rice	- 42	-189	-149
Soybeans	- 4	- 8	+ 4
Sunflower	- 10	- 16	- 17
Peanuts	+148	+177	+124

Source: Economic Indicators of the Farm Sector: Costs of
Production, 1987, ERS/USDA, ECIFS 7-3, February 1989.

Everyone in this audience, hopefully can explain the reasons
for the difference. The effects of government programs through
the imposition of marketing quotas are included in the case of
peanuts, where a two price system for quota peanuts and
additional peanuts is in place. The price of quota peanuts is
about four times the support rate for additional peanuts. This
government program has worked well in the interest of both
producers and processors. Interestingly, the annual rental value
of quota is reported by Schaub to be about $150 per ton, about
the same as the average of the residual returns to risk and
management per acre reported in Table 4.

The reason for dwelling on this comparison, which could be
explained to the general public by most agricultural economists
with a little effort, is that the effects of government programs
on returns is included in one estimate of gross value of
production (peanuts) but not the other (wheat). If one turns a
few more pages in ECIFS 7-3 to sugar beet production costs for
the same years, one finds residual returns to risk and management
per acre of $100 (1985), $157 (1986), and $236 (1987). It is no
wonder that stories appeared in the Wall Street Journal, June 26,
1990, with the headline, "Range War: Small Minnesota Town Is
Divided by Rancor Over Sugar Policies". While the programs for
sugar beets, which compete with corn and soybeans in some
locations, are different from peanuts, gross returns per acre are
even more strongly influenced by government programs although
direct government payments are not involved.

The single, strongest recommendation in this paper is that ERS include direct government payments and other quantifiable additions to income resulting from government programs when estimating gross value of production in their annual cost of production reports. Two sets of estimates were developed for 1988 rice production costs and returns excluding and including the effects of government programs (Salassi, et al). Variable cash expenses were the same in both estimates. Gross value of production per acre was $370 in one case and $596 in the second. Fixed costs differed in the two sets of estimates, primarily reflecting differences in the way land was valued. Residual returns to risk and management increased from $-105 to $+49 per acre.

Included in gross value of production when government programs were included were (1) market value, (2) deficiency payments, (3) marketing loan proceeds, and (4) haying/grazing on ACR acreage. The third item is one of the "additional" benefits which may occur when marketing loans are part of government programs. All such quantifiable benefits resulting from participation in a commodity program should be identified insofar as possible as part of the returns statement. Thus, if corn producers consistently benefitted from "PIK and roll" such an estimate of the addition to gross value would be warranted. At the same time if land is forced to be idled and no crop can be harvested because of ARP, the costs associated should be recognized in a separate line in the summary statement to recognize this effect of government programs as well.

Other Effects on Returns by Government Programs

Government programs have a direct effect on returns through control over supply and hence in market prices (peanuts, sugar beets, sugar cane) or through direct payments (food and feed grains). In the case of marketing loans there is also the difference between the loan rate and the world market price which can be received which adds to revenue in years when this occurs. With appropriate ...."adjustments made for program yields, the basis on which producers are actually paid, program participation rates, and payments under the 50/92 program"...(Salassi) most of the quantifiable effects of government programs are considered.

Other effects also exist which are much less easily identified in numerical form. Among those commonly cited are the depressing effect on market prices of CCC stocks and those in the FOR when the market views them as burdensome (Knutson, Gardner). Conversely, quotas and controls on imports for commodities like beef and dairy products can have a positive effect on prices even when the quantity of imports is small relative to domestic production. The major efforts devoted to estimating producer subsidy equivalents as part of the data

assembled for the GATT Negotiations, have provided evidence for both exporting and importing countries of the numerous ways in which governments influence both costs and returns in each domestic market (Mabbs-Zeno). In an international framework quantitative estimates of these separate effects have been made using a consistent methodology.

In my view, it would be useful in national estimates of costs and returns for individual commodities to recognize the more important of these effects. These can be identified in a footnote to the existing tables even if a quantitative estimate of their implicit effect on returns cannot be calculated systematically.

Estimates of Fixed and Variable Costs

Before examining the ways in which government programs have direct and indirect effects on costs of production, the following assertions about the treatment of fixed and variable costs provide my perspective: (1) Valid comparisons can be made across regions with respect to variable costs per unit of production. (2) Most problems in developing "acceptable" cost statements are associated with the assumptions required in estimating and allocating fixed costs. (3) Recognition of the influence of government programs on capital requirements, land values, and production rights, like marketing quotas, must be addressed directly if a "full" cost of production statement is desired.

Variable Costs. In the view of this analyst, it is variable costs that deserve the most care and attention in collecting information on costs of production. These are the out-of-pocket costs over which short-run production decisions are made. It is possible to get comparable information from producers in different locations and situations for a given technology. It is even possible to make comparisons on variable costs across national boundaries. For many producers, the difference between gross value of production and variable costs, excluding cash rent, is the number that deserves special study. This is what is left over to cover fixed costs, overhead, depreciation and pay for the use of family labor, capital, land, and management. If consistent estimates of gross margin, or alternatively value of production less cash expenses (interest payments on real estate may confound these results), useful comparisons between years and regions can be made.

Fixed Costs. Despite 100 years of making estimates of production costs in Europe, North America and Asia, agricultural economists have not yet agreed on a standard way to calculate and then allocate fixed costs to individual enterprises. The approaches to this problem from both accounting and economics are commonly mixed together. The opportunity cost principle and

market prices get priority in most calculations. Yet, accounting
rules and conventions remain important parts of most estimation
procedures because better alternatives have not been developed to
handle depreciation, charges for management, and interest on
family contributions of capital.

Expected future benefits associated with the rights to
produce, such as an acreage allotment or a marketing quota, are
quickly capitalized into a value either associated with land or
the production right itself. Thus, annual rent for one ton of
quota peanuts is about $150, roughly 25% of the sale price.
Marketing quotas, when sold, can range in value between $1200 and
$2000 per ton. In a somewhat more complex, but similar manner,
expected future benefits from current government programs
involving target prices, deficiency payments, and loan rates are
capitalized into land values. Separating the effects of
government programs on land values from other effects like
distance from markets, productivity of soils, risk from weather
related hazards, etc. is difficult or impossible if one seeks
agreement on how to allocate the contributions to value.
Nevertheless, most will agree that government programs do have an
influence on land values even though quantifying that component
from others is difficult to achieve.

Special Issues Concerning Costs Resulting from Government Programs

Subsidies. Within a national context, if all competing
producers have equal access to the same production subsidy then
it can be argued that recognition of that subsidy in cost of
production statements is unnecessary except for international
comparisons. If, on the other hand, some producers benefit
substantially while others do not, there is a greater need to
recognize these differences. Federal and state water projects
are examples of this kind of issue. As the competing demands for
water become increasingly strong in the West this will
necessarily be reflected directly in variable costs. Land values
and their associated rental rates already reflect the capitalized
value of "free" access to irrigation water.

The question posed here is whether water costs, both cash
and subsidized, should not be recognized as one of the key items
in variable cost statements for crops where irrigation is
required. Such action might require a compensating reduction in
"net land return" or cash rent in the national accounts prepared
by ERS. Such action would recognize more directly the difference
in variable costs associated with new and old sources of
irrigation water.

Acreage Reduction Program. Some cropland must be idled as a result of participation in commodity programs. Recognition of this cost item should be made explicit for a typical or representative producer in the cost statement. Because the ACR varies by crop and by year the associated "cost," or income forgone from the use of the land resource, can be incorporated as a component of the land charge. In principle, the percentage of set-aside (15%) could be reflected as 1.15 acres of land charged per acre of crop actually produced. This complication, while an additional burden in a standard cost of production statement, will provide a mechanism to recognize some of the costs as well as the addition to income from deficiency payments.

How far should the effort to account for effects of government programs go? With the triple base option in 1991, deficiency payments are now denied on an additional percentage of the acreage of a program crop. This will be reflected automatically in cash deficiency payments received. Likewise there will be some cash costs of meeting the conservation compliance requirements of the ARP. The rules on payment limitations may also have an effect on some of the largest operations. Some capital costs may be necessary to meet the requirement for having an approved conservation plan in place by 1995. Insofar as it is feasible to determine the actual cash, or their equivalent effects of government programs in a cost and returns statement it will make the final product more realistic. Pointing out these several influences may also be beneficial to both analysts, producers, and policy makers.

Effects on the Cost and Returns Statement

One important effort to compare cost and returns statements for a crop, rice, where the effects of government programs are important, was published by ERS, USDA in 1990 (Table 5). All of the detail is not reproduced but the key differences are suggested. Value of production is increased primarily by deficiency payments and net proceeds from marketing loans. Cash expenses differ only by the additional costs of maintaining conserving acres. The most important difference among all the cost calculations is the calculation for "net land rent" under the heading, allocated returns to owned inputs. The rental rate of $57.84 contrasts with $121.15 per acre when the effects of government programs are included (Salassi).

Table 5. **Production Costs and Returns:**
With and Without Effects of Government Programs
United States, 1988

Description	Without Effects	Including Effect
	- Dollars Per Planted Acre -	
Gross Value of Production:		
Market Value	$ 370.33	$ 370.33
Deficiency Payments		204.03
Marketing Loan Proceeds		21.30
Other		.05
Total Value	370.33	595.71
Cash Expenses:		
Variable Cash Expenses	296.09	297.46
General Farm Overhead	21.50	25.05
Taxes and Insurance	12.13	14.28
Interest on Operating Loans	14.04	16.33
Interest on Real Estate	9.42	11.18
Total Cash Expenses	353.18	364.30
Returns Less Cash Expenses	17.15	231.41
Capital Replacement	46.34	47.49
Returns Less Capital and		
Replacement	-29.19	183.92
Economic Costs:		
Variable Cash Expenses	296.09	297.46
General Farm Overhead	21.50	25.05
Taxes and Insurance	12.13	14.28
Capital Replacement	46.34	47.49
(Subtotal)	(376.06)	(384.28)
Allocated Returns to Owned		
Inputs:		
Operating Capital	6.68	6.74
Other Non-land Capital	10.86	11.15
Net Land Rent	57.84	121.15
Unpaid Labor	23.70	23.84
Total Economic Costs	475.14	547.16
Residual Returns to		
Management and Risk	-104.81	48.55

Source: Salassi, M. et. al. "Effects of Government Programs on
Rice Production Costs and Returns, 1988". Agri. Info.
Bull. 597, March 1990.

From my perspective, the statement which includes the effects of government programs provides the more realistic assessment of conditions facing producers. One could argue that the controversial land charge should be handled like capital replacement and moved to the first half of the table. Moreover, some report of cash rental rates could be provided directly or in a footnote. The important point is that the statement including the effects of current programs more nearly represents the combination of incentives and disincentives facing producers in the field. A cost statement which consciously excludes deficiency payments and the costs of conservation compliance, leaves out an important part of the cost and returns picture facing the industry.

Summary Comments

The effects of government programs on both costs and returns should be identified and assessed wherever possible in the statements prepared annually by ERS. Because the government programs change from year to year, the annual statements for corn or wheat may not be "comparable" in all respects. But many other things of importance change as well including technology, the weather, and world supply-demand conditions. Recognizing the influences of government programs provides the public and policy makers a more accurate and realistic picture of the industry.

A full assessment of all the ways in which government programs affect costs and returns for a given commodity may not be possible. But a large share of them can be put in quantitative terms just like fertilizer and seed. Certainly deficiency payments should be included as part of cash returns for food and feed grains if sugar beets and peanuts are evaluated at "market" prices established by the intervention of government controlling supply. An effort should be made to evaluate as many of the items of costs and returns as possible. If a subsidy or cost can only be recognized in qualitative terms it is worthy of a footnote. In the long run legislators, industry personnel and the general public will be served best if these cost and returns statements reflect actual conditions as clearly as possible.

REFERENCES

1. Agr. & Rur. Econ. Div., <u>Economic Indicators of the Farm Sector: Costs of Production, 1987</u>, ERS, USDA, ECIFS 7-3, February 1989.

2. Bureau of the Census, <u>Government Payments and Market Value of Agricultural Products Sold</u>, Vol 2:5, AC 87-S-5, September 1990.

3. Gardner, Bruce L., "Public Policy and the Control of Agricultural Production," <u>Amer. J. Agr. Econ.</u> Vol.60: 836-43, 1978.

4. Ingersoll, Bruce, "Range War: Small Minnesota Town Is Divided by Rancor over Sugar Policies," <u>Wall Street Journal</u>, June 26, 1990.

5. Knutson, Ronald, J. B. Penn, & W. T. Boehm, <u>Agricultural and Food Policy</u>, 2nd edition, Prentice Hall, 1990.

6. Mabbs-Zeno, Carl, "Estimates of Producer and Consumer Subsidy Equivalents," ATAD, ERS, USDA, Staff Report AGES880127, April 1988.

7. Martin, Marshall, "Cost of Production - The Concept and Some Implications for Its Use," Purdue Univ. Sta. Bull. 162, May 1977.

8. McElroy, B. et al, <u>Agricultural Income and Finance Situation and Outlook Report</u>, ERS, USDA, AFO-39, December 1990.

9. Salassi, Michael, Mary Ahearn, Mir Ali, & Robert Dismukes, "Effects of Government Programs on Rice Production Costs and Returns, 1988," ERS, USDA, Agr. Info. Bull. 597, March 1990.

10. Schaub, James, "The Peanut Program and Its Effects," <u>National Food Review</u>, Vol.13:1, Jan-Mar 1990, pp. 37-40.

11. Stanton, B. F., "Comparative Statements on Production Costs and Competitiveness in Agricultural Commodities," Cornell Univ. A.E. Staff Paper 86-27, October 1986.

APPENDIX A

Effect on State Totals by Adding Government Payments to Agricultural Sales, Census Data, 1987

State	Total Sales	Government Payments	New Total	Payments as Percent of Total
		- Billions -		
1. North Dakota	$2,188.2	$ 484.6	$2,672.8	18.1
2. Montana	1,547.3	232.6	1,779.9	13.1
3. Illinois	6,376.8	885.5	7,262.3	12.2
4. Iowa	8,926.8	1,153.7	10,080.5	11.4
5. Minnesota	5,676.4	712.8	6,389.2	11.2
6. South Dakota	2,719.5	313.1	3,032.6	10.3
7. Indiana	4,067.7	440.6	4,508.3	9.8
8. Nebraska	6,667.1	718.2	7,385.3	9.7
9. Kansas	6,476.7	573.6	7,050.3	8.1
10. Michigan	2,545.1	223.5	2,768.6	8.1
11. Mississippi	1,862.9	159.5	2,022.4	7.9
12. Ohio	3,434.1	286.3	3,720.4	7.7
13. Louisiana	1,340.2	106.8	1,447.0	7.4
14. Oklahoma	2,714.9	211.2	2,926.1	7.2
15. Missouri	3,645.0	277.3	3,922.3	7.1
16. Arkansas	3,320.3	232.4	3,552.7	6.5
17. Texas	10,548.9	677.7	11,226.6	6.0
18. Idaho	2,269.4	144.6	2,414.0	6.0
19. Washington	2,919.6	178.0	3,097.6	5.7
20. Colorado	3,143.1	186.3	3,329.4	5.6
21. South Carolina	878.7	48.8	927.5	5.3
22. Wisconsin	4,909.9	256.8	5,166.7	5.0
23. Tennessee	1,617.6	82.5	1,700.1	4.9
24. Kentucky	2,075.6	100.4	2,176.0	4.6
25. New Mexico	1,060.1	49.0	1,109.1	4.4
	$92,913.9	$ 8,735.8	$101,649.7	
Other 26 States	43,134.6	910.8	44,045.4	2.1
All States	136,048.5	9,646.6	145,695.1	6.6

APPENDIX B

**Impact of Government Payments on Size Distribution
Size Distribution of Farms, United States, 1987**

Description	Market Sales Only	Sales Plus Government Payment	Difference
		- Number of Farm -	
$1,000,000 or more	11,093	11,598	+ 505
500,000 - 999,999	20,930	23,360	+ 2,430
250,000 - 499,999	61,148	71,333	+10,185
100,000 - 249,999	202,550	224,186	+21,636
50,000 - 99,999	218,050	220,512	+ 2,462
25,000 - 49,999	219,636	219,113	- 523
10,000 - 24,999	326,166	320,937	- 5,229
5,000 - 9,999	274,972	268,654	- 6,318
2,500 - 4,999	262,918	255,801	- 7,117
Less than 2,500	490,296	472,265	-18,031
Total Farms	2,087,759	2,087,759	--

APPENDIX C

Impact of Adding Government Payments
to Market Sales in
Size Distribution of Farms, United States, 1987

Description	Market Sales Only	Sales Plus Government Payment	Difference
		- Total Value (billions) -	
$1,000,000 or more	$ 37.87	$ 38.73	+ 0.86
500,000 - 999,999	14.08	15.70	+ 1.62
250,000 - 499,999	20.74	24.22	+ 3.48
100,000 - 249,999	31.18	34.81	+ 3.63
50,000 - 99,999	15.66	15.88	+ 0.22
25,000 - 49,999	7.87	7.87	0.00
10,000 - 24,999	5.24	5.17	- 0.07
5,000 - 9,999	1.96	1.92	- 0.04
2,500 - 4,999	0.95	0.92	- 0.03
Less than 2,500	0.50	0.48	- 0.02
Total Value	136.05	145.70	+ 9.65*
Aggregate government payments, 1987 from ERS, ECIFS 8-1.			16.75

Other Agricultural Economics Staff Papers

No. 90-16   Modeling the U.S. Dairy Sector With   Donald J. Liu
Government Intervention   Harry M. Kaiser
Timothy D. Mount
Olan D. Forker

No. 90-17   Policy Education Programs for Extension's   David Allee
Solid Waste Initiative

No. 90-18   Social Security Tax and Benefit Issues,   Stuart F. Smith
Questions and Answers for Farmers and
Workers

No. 90-19   Debt-For-Nature Swaps and the Environment   Steven C. Kyle
in Africa

No. 90-20   Advertising and Promotion Investment: Olan Forker
What is the Right Level?

No. 90-21   Use of Firm Level Agricultural Data Collected   George L. Casler
and Managed at the State Level for Studying
Farm Size Issues

No. 90-22   Recent Trends in Food Availability and   Thomas T. Poleman
Nutritional Well-Being

No. 91-1   Biological Emissions and North-South Politics   Thomas Drennen
Duane Chapman

No. 91-2   Equitable Patent Legislation for Developing   William Lesser
Countries

No. 91-3   How Not to Farm Together   Eddy L. LaDue

No. 91-4   Honey Industry Survey: An Update   Lois Schertz Willett

No. 91-5   Environmental Protection Through Local Land   David J. Allee
Use Controls

No. 91-6   Farm Structure: Concept and Definition   B. F. Stanton