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PROCEEDINGS OF A SYMPOSIUM ON

ANALYSIS AND MANAGEMENT OF AGRICULTURAL ECONOMICS PROGRAMS



Sponsored by the

Cooperative State Research Service United States Department of Agriculture

AAEA-CSRS Symposium Held August 2, 1988 Knoxville, TN WAITE MEMORIAL BOOK COLLECTION
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October, 1988

OVERVIEW OF MARKETING ECONOMICS RESEARCH FUNDING AT STATE AGRICULTURAL EXPERIMENT STATIONS, 1970-85

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Abstract

Federal funding of economics and marketing economics at state agricultural experiment stations declined substantially between 1970 and 1985. Associated with the decline was removal in 1977 of the requirement that 20 percent of added hatch funds be on marketing. Relative increases in nonfederal support, particularly state appropriations, were important in sustaining research in economics and marketing economics.

Introduction

Several changes occurred during the 1970s and 1980s in the funding of state agricultural experiment stations. Important from the standpoint of agricultural economics was the removal in 1977 of the requirement that 20 percent of added Hatch funds be allocated to marketing.

In this paper the following topics are examined:

 Changes in total funding of state agricultural experiment stations (SAES) for research in economics and marketing

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- economics, for the United States and by crop production regions, by funding source, between 1970 and 1985.
- Changes in funds allocated to economics and to marketing economics from federal and nonfederal sources during this period.
- Allocations of total SAES expenditures, and marketing economics expenditures by type of spending, 1970 to 1985.

The results generally show that total funding of SAES and of economics and marketing economics research between 1970 and 1985 increased more rapidly than the rate of inflation. But the relative importance of federal funding of agricultural marketing economics research decreased substantially. Increases in nonfederal funding, primarily state appropriations, offset much of the relative reduction in federal support. Emphasis within marketing economics shifted toward macro oriented issues and away from firm and physical efficiency research.

Previous Studies

Aspects of marketing research, including funding, have been examined in several recent studies. As noted by Babb, et al. (1985), these studies indicate that the 20 percent requirement, which was stipulated in the Research and Marketing Act of 1946 and the Hatch Act, as amended in 1955, highlighted marketing problems, stimulated research interest in marketing and developed competence in the area. Babb (1977) estimated that expenditures for marketing research, including marketing technology, rose from about 5 percent of total SAES expenditures in the late 1940s to around

10 percent in the early 1960s and were around 9 percent from the mid 1960s to the mid 1970s.

Combining USDA and SAES, marketing research expenditures declined from 24 percent in 1966 to 18 percent in 1981. USDA expenditures on marketing research declined sharply, compared with a modest decline in marketing research at SAES (Babb, et al, 1985). The declining overall emphasis on marketing research occurred in spite of the greatly expanded definition of marketing in 1970 to include more food technology related work as marketing.

This study is focused on funding support of economics and marketing economics research at state agricultural experiment stations in the United States by Crop Production Regions (Appendix Figure 1).

Marketing Economics Data Retrieval Process

The basic data source for this study is the CRIS (Current Research Information System) that was established and is maintained by the USDA Cooperative State Research Service. The years selected were 1970, 1975, 1980 and 1985. Thus, there were two observation years before and two after the 20 percent marketing requirement was eliminated. Research Problem Areas (RPAs) and activities that are believed to cover research in marketing economics were selected with the help of CSRS representatives (Appendix Table 1). Excluded is marketing related work that does not fall within CSRS Field of Science 2630 (Economics).

Total SAES Funding

Total SAES funding rose from around \$315 million in 1970 to \$1,146 million in 1985, an increase of 264 percent (Table 1). The proportion from federal sources was about 29 percent in 1970 and 27 percent in 1985 (Chart 1). Support from nonfederal sources was about 71 percent in 1970 and 73 percent in 1985. State appropriations comprised the largest single funding source at approximately 56 percent in both 1970 and 1985. Thus there was not a large change in the proportions of federal and nonfederal sources of funds for state agricultural experiment stations during the 15 year period.

Turning to economics (Field of Science 2630), federal funding of SAES research declined sharply from 47 percent in 1970 to 32 percent in 1985 (Chart 2). The steepest drop was from CSRS, which was around 40 percent of total SAES support in 1970 and only 23 percent in 1985. The most drastic change occurred between 1975 and 1980, when CSRS support dropped from nearly 38 percent to 27 percent (Table 2). Nonfederal funding, primarily state appropriations, made up the difference.

Marketing economics support from federal sources declined even more than for economics (Chart 3). In 1970 nearly 58 percent of the SAES marketing economics research was funded by federal government sources. By 1985 the federal share was 36 percent (Table 3). CSRS support of marketing economics research was over half of SAES funding in 1970 (54 percent) and just slightly more than one-fourth (26 percent) in 1985. Again, the steepest decline in CSRS support occurred between 1975 and 1980, coinciding with the 1977 removal of the marketing funding requirement. Also contributing to the lower federal support of both economics and marketing

Table 1. Table Research Funds Available to State Agricultural Experiment Stations by Funding Source, <u>United States</u>, 1970, 1975, 1980 and 1985.

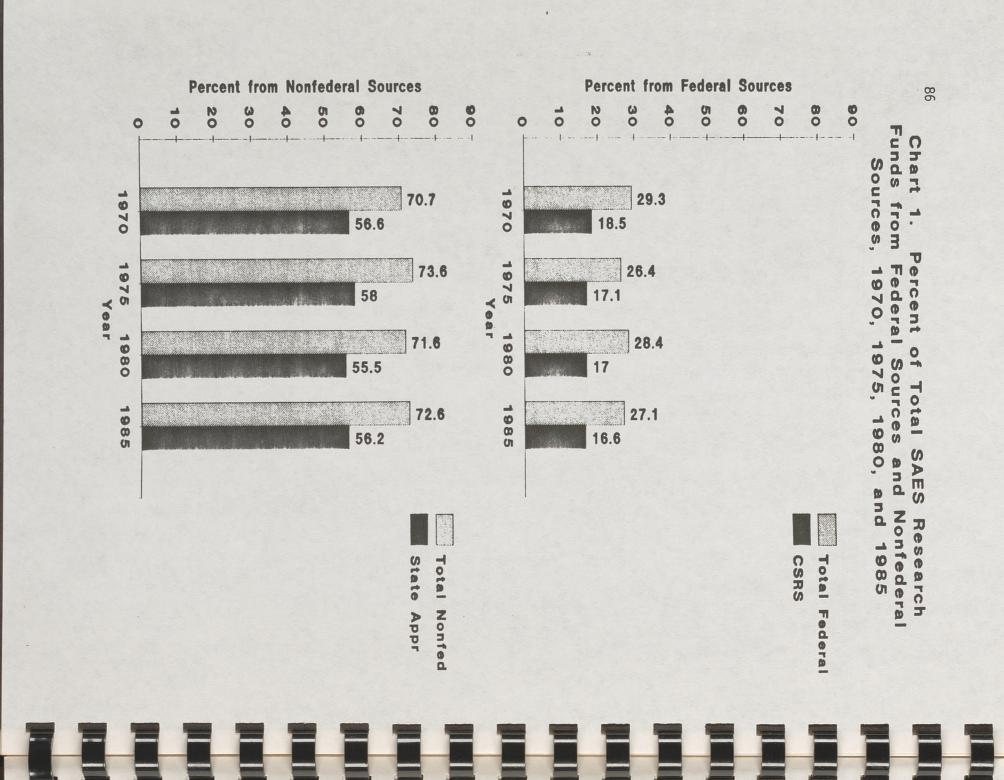
Funding Source	1970	1975	1980	1985
		Thousa	nd Dollars	
Total SAES	314,709	482,206	804,844	1,145,957
		Percen	t of Total	
Total SAES	100.0	100.0	100.0	100.0
<u>Federal</u>	29,270	26,441	28.408	27.144
CSRS Hatch and RRF McIntire-Stennis Special Grants Competitive Grants Animal Health Other CSRS Other USDA Other Federal	18.450 17.077 .952 0 0 0 2.285 8.536	17.122 15.349 1.097 0 0 0 .123 2.232 7.088	17.004 14.138 .912 1.180 0 .670 .089 3.027 8.377	16.554 12.935 .840 1.671 .674 .358 .076 2.708 7.881
Non-Federal	70.730	73.559	71.592	72.956
State appropriations Product Sales Industry Grants Other	56.617 7.327 4.448 2.339	58.030 7.656 4.868 3.004	55.532 6.862 5.694 3.503	56.238 5.700 6.338 4.579

Table 2. Total Research Funds Allocated to <u>Economics</u> (Field of Science 2630) by State Agricultural Experiment Stations, by Funding Source, <u>United States</u>, 1970, 1975, 1980 and 1985.

Funding Source	1970	1975	1980	1985
		Thousa	nd Dollars .	
Total SAES	18,502	30,372	52,766	74,308
		Percen	t of Total -	
Total SAES	100.0	100.0	100.0	100.0
<u>Federal</u>	46.531	46.121	40.511	31.101
CSRS	39.540	37.569	27.032	23.107
Hatch and RRF	37.753	33.817	23.514	19.979
McIntire-Stennis	1.354	1,725	1.144	1.280
Special Grants	0	0	1.566	1.844
Competitive Grants	0	0	0	C
Animal Health	0	0	.039	.004
Other CSRS	0	.897	.771	0
Other USDA	3.585	3.887	6.791	6.342
Other Federal	3.406	4.666	6.687	2.653
Non-Federal	53.469	53.879	59,489	67.899
State appropriations	45.238	45.910	51.296	58.278
Product Sales	2.095	1.890	2.468	2.047
Industry Grants	3.715	2.256	2.502	2.438
Other	2.421	3.623	3.223	5.136

Table 3. Total Research Funds Allocated to <u>Marketing Economics</u> by State Agricultural Experiment Stations, by Funding Source, <u>United States</u>, 1970, 1975, 1980 and 1985.

Funding Source	1970	1975	1980	1985
		Thousa	nd Dollars -	
Total SAES	8,039	10,119	17,732	28,161
		Percen	t of Total -	
Total SAES	100.0	100.0	100.0	100.0
<u>Federal</u>	57.592	54.437	43.420	36.079
CSRS Hatch and RRF McIntire-Stennis Special Grants Competitive Grants Animal Health Other CSRS Other USDA Other Federal	53.574 52.637 .659 0 0 0 0 2.853 1.164	47.576 46.539 .772 0 0 .100 4.559 2.301	32.779 30.254 .343 2.097 0 .086 6.966 3.675	26.293 23.634 .896 1.764 0 0 7.375 2.411
Non-Federal	42,208	45,563	56.580	63.921
State appropriations Product Sales Industry Grants Other	36.502 1.081 2.092 2.733	37.985 .966 3.587 3.025	50.278 1.743 1.952 2.606	56.077 1.744 2.163 3.937



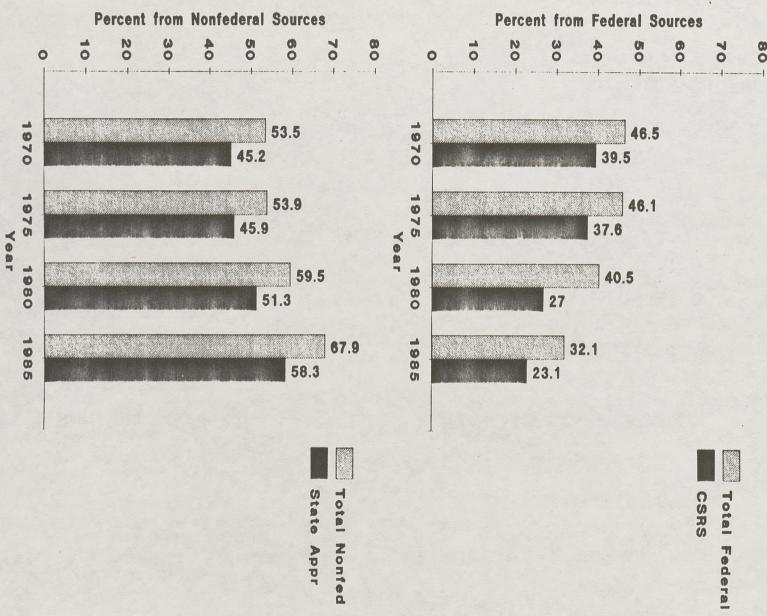
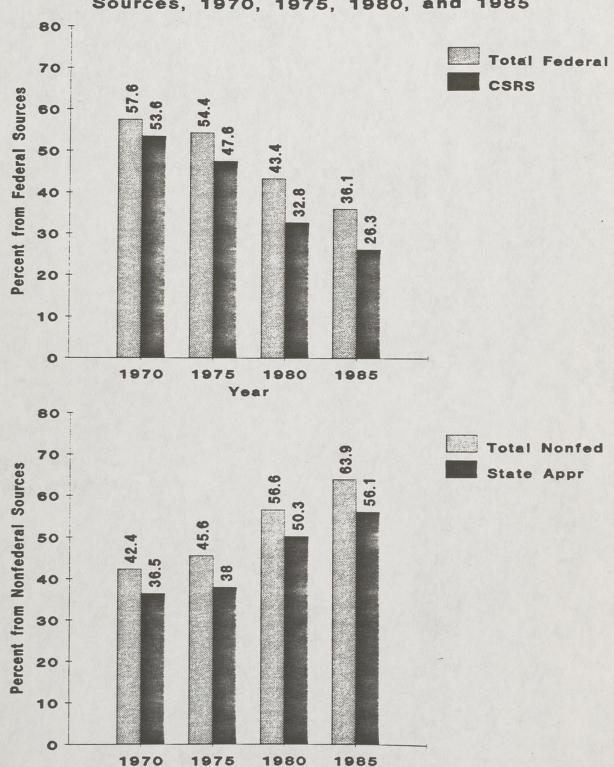


Chart Sources, 1970, 1975, 1980, and 1985 Funds from Federal and Nonfederal Percent of SAES Economic Research

Chart 3. Percent of SAES Marketing Economics Research Funds from Federal and Nonfederal Sources, 1970, 1975, 1980, and 1985



Year

economics was the relative lack of opportunity for these areas to compete for expanded CSRS special grants and competitive grants during this period.

Similar declining trends in federal funding of total SAES research, economics and marketing economics occurred in most crop production regions as in the total United States. However, there were fairly wide variations among the regions (Table 4).

Nevertheless, increases in total SAES, economics, and marketing economics support were all greater than the 177 percent increase in the Consumer Price index between 1970 and 1985 (Chart 4). This same pattern generally occurred, with few exceptions, in the crop production regions (Table 5). In fact, total funding of economics research rose from 5.88 percent of total SAES research funding in 1970 to 6.48 in 1985 (Chart 5). For marketing economics, the percentages were 2.55 in 1970 and 2.46 in 1985.

In 1985, SAES allocations to economic research ranged from 9.67 percent of their total budgets in the Corn Belt to a low of 4.2 percent in the Northern Plains (Chart 6). Allocations to marketing economics ranged from a low of 1.76 percent of total SAES research spending in the Pacific Region to around 2.5 percent in Appalachia, the Southeast and the Northern Plains and a high of 4.3 percent in the Corn Belt.

SAES Economic and Marketing Economics Research by Area of Emphasis

Table 7 shows the magnitude of total SAES expenditures by goal and the goals stressed within economics and marketing economics. The importance of

Table 4. Percent of Total SAES, Economics and Marketing Economics Research Funds from Federal Sources, United States and Crop Production Regions, 1970, 1975, 1980 and 1985.

		Tota:	LSAES			Econo	omics		Marketing Economics			
	1970	1975	1980	1985	1970	1975	1980	1985	1970	1975	1980	1985
		Pero	cent			Per	cent			Per	cent	
United States	29.3	26.4	28.4	27.1	46.5	46.1	40.5	32.1	57.6	54.4	43.4	36.1
Appalachia	37.7	30.1	31.9	27.0	62.9	62.6	48.7	43.4	73.6	69.0	51.2	49.9
Corn Belt	30.8	30.9	31.9	31.6	37.9	46.1	44.0	42.3	50.2	53.3	49.3	43.3
Delta	29.1	20.7	19.8	18.2	51.3	39.4	35.7	31.7	68.7	55.4	38.3	36.1
Lake	35.9	33.9	33.5	30.9	38.2	41.9	41.5	32.8	43.0	37.6	48.7	44.3
Mountain	30.5	28.0	36.6	35.8	52.4	47.7	46.5	32.8	70.9	64.8	46.1	27.1
Northeast	31.3	31.3	36.0	34.3	51.5	52.3	44.4	32.0	52.6	58.7	46.4	38.6
Northern Plains	22.4	23.4	19.9	22.3	44.4	43.1	22.8	23.6	64.8	52.9	26.4	27.3
Pacific	24.8	23.0	26.5	26.0	36.1	35.7	40.5	22.8	36.9	36.9	33.2	25.1
Southeast	21.1	17.2	18.6	18.1	46.4	38.2	28.8	27.9	60.6	55.9	37.1	32.4
Southern Plains	31.9	24.1	24.4	20.3	56.1	57.2	45.0	17.6	80.3	68.9	48.5	19.9

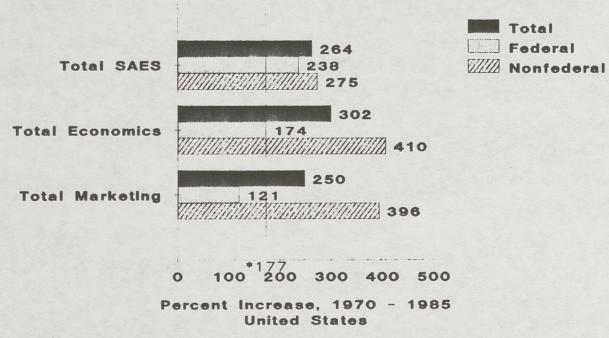
TABLE 5. Percent Increase in State Agricultural Experiment Station Funding, Total, Economics and Marketing Economics, United States and Crop Production Regions, 1970-85.

	I1	ncrease, 1970-85	
	Total SAES	All Economicspercent	Marketing Economics
United States	264	302	250
Appalachian	273	380	320
Corn Belt	205	256	302
Delta	346	144	238
Lake	306	280	188
Mountain	327	374	244
Northeast	208	255	168
Northern Plains	251	246	296
Pacific	235	297	265
Southeast	296	327	278
Southern Plains	403	491	272

TABLE 6. Research Funds Available to State Agricultural Experiment Stations from CSRS and Allocations to Economics and Marketing, <u>United States</u>, 1970, 1975, 1980 and 1985.

	Total CARC		CSRS Allocations to						
Year	Total SAES funds from CSRS \$ thousand	Economics (2630)	Non-Marketing Economicspercent	Marketing Economics					
1970	58,063	12.60	5.18	7.42					
1975	82,561	13.82	7.99	5.83					
1980	136,858	10.42	6.17	4.25					
1985	189,707	9.05	5.15	3.90					

Chart 4. Percent Increase in State Agricultural Experiment Station Funding, 1970 - 1985, Total Economics and Total Marketing, by Major Funding Source, United States



*(CPI)

Chart 5. Percent of Total State Agricultural Experiment Station (SAES) Funds Allocated to Economics and to Marketing Economics, 1970, 1975, 1980, and 1985

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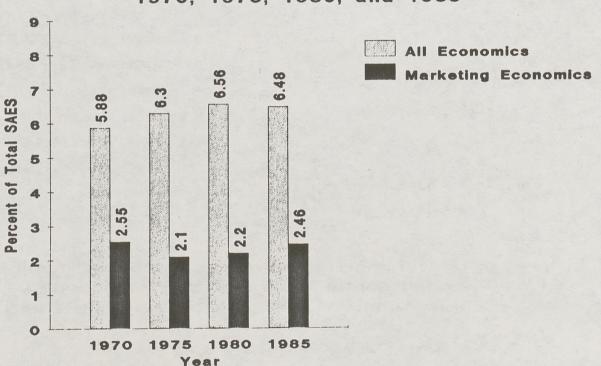


Chart 6. Percent of State Agricultural
Experiment Station Funds Allocated to
Economics and to Marketing Economics, 1985

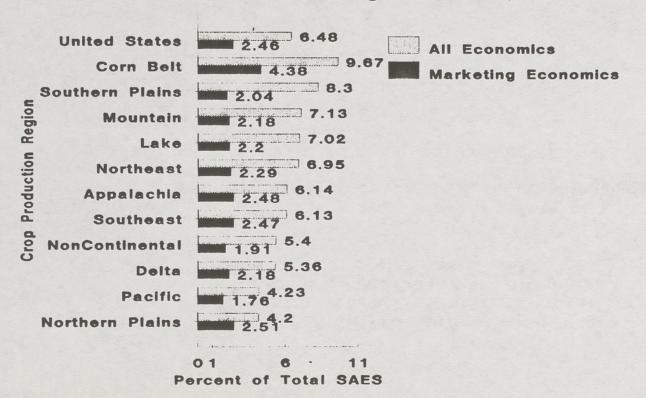


Table 7. Total SAES Expenditures by Goal and Percent of Expenditures by Goal in Economics and Marketing Economics, United States, 1970, 1975, 1980 and 1985.

		1970			1975			1980			1985		
		Percent	of SAEA										
		by Goal			by G	Soal		by G	oal		by (Goal	
		Field of			Field of			Field of			Field of		
		Science			Science			Science			Science		
		2630	Marketing										
Goal*	Total SAES	Economics	Economics										
	\$ Thousand	Percent	Percent										
0	32,915	0	0	21,760	0	0							
I	24,184	6.47	0	37,634	7.05	0	77,225	7.72	0	134,262	6.00	0	
II	50,386	.05	0	84,565	.28	0	162,254	. 57	0	241,587	.67	0	
III	130,653	3.00	0	194,331	2.76	0	340,912	3.03	0	476,593	3.04	0	
IV	23,642	.83	.65	35,472	.86	.44	60,252	. 93	.24	86,491	.84	.37	
٧	8.622	83.50	83.50	10,863	81.19	81.19	19,073	80.89	80.89	26,917	85.89	85.89	
VI	1,054	66.17	44.15	1,166	83.84	62.46	3,244	63.66	43.76	5,660	67.28	47.21	
VII	12,833	2.13	1.73	19,932	2.99	2.08	40.682	2.14	1.63	57.133	2.71	2.31	
VIII	5,166	38.26	0	9,522	39.30	0	17,934	39.59	.43	24.699	43.99	2.96	
IX	25,255	10.50	0	66,960	11.46	0	83,268	11.44	0	92614	10.88	0	
TOTAL	314,709	5.88	2.55	482,206	6.30	2.10	804,844	6.56	2.20	1,145,957	6.48	2.46	

*Goal titles are as follows:

0 - An early administrative classification that was discontinued.

I - Insure a stable and productive agriculture for the future through wise management of natural resources.

II - Protect forests, crops and livestock from insects, diseases and other hazards.

III - Produce an adequate supply of farm and forest products at decreasing real production costs.

IV - Expand the demand for farm and forest products at decreasing real production costs.

V - Improve efficiency in the marketing system.

VI - Expand export markets and assist developing nations.

VII - Protect consumer health and improve nutrition and well-being of the american people.

VIII - Assist rural Americans to improve their level of living.

IX - Promote community improvement including development of beauty, recreation environment economic opportunity, and public services.

production related research in total expenditures is apparent, as is the orientation in economics toward marketing efficiency and assistance to rural Americans to improve their level of living. The relative importance of the various goals shows considerable stability over the 15 year period in total expenditures (Table 8). In marketing economics, some decline is apparent in marketing efficiency research, with gains in goals of export demand expansion, health and nutrition and improving levels of living.

Tables 9 and 10 show these trends in marketing economics more clearly by Research Problem Area (RPA) and by activity. While the marketing efficiency emphasis has decreased, expansion has appeared in supply, demand, and price analysis and in such macro oriented research as performance of marketing systems, foreign market development, food consumption, structural changes in agriculture, and, as shown in Table 10, evaluations of public programs, policies, and services related to marketing.

Conclusions

Total funding of economics research was 5.88 percent of total SAES research funding in 1970 and 6.58 percent in 1985. For marketing economics, the percentages were 2.55 in 1970 and 2.46 in 1985. Federal support of total SAES funding declined from 29.27 percent in 1970 to 27.14 percent in 1985. The decline in federal support was substantial for economics and marketing economics, with the sharpest drop occurring between 1975 and 1980. This apparently reflected the removal in 1977 of the requirement that 20 percent of added Hatch funds be allocated to marketing.

TABLE 8. Percent of Total SAES and Marketing Economics Expenditures by Goal, United States, 1970, 1975, 1980 and 1985.

		TOTAL	SAES		· .	MAR	KETING F	CONOMICS	
GOAL1/	1970	<u>1975</u>	1980	1985	sand doll	1970	1975	1980	1985
	21/ 700	400.006	001 011						
	314,709	482,206		1,145,957			10,119	17,732	28,161
				I	percent				
0	10.46	4.51				0	0		
I	7.68	7.80	9.60	11.72		0	0	0	0
II	16.01	17.54	20.16	21.08		0	0	0	0
III	41.52	40.30	42.36	41.59		0	0	0	0
IV	7.51	7.36	7.49	7.55		1.90	1.55	.82	1.14
V	2.74	2.25	2.37	2.35		89.55	87.16	87.01	82.10
VI	.33	.24	.04	.49		5.79	7.20	8.01	9.49
VII	4.08	4.13	5.05	4.99		2.77	4.10	3.73	4.68
VIII	1.64	1.97	2.23	2.16		0	0	.43	2.59
IX	8.02	13.89	10.35	8.08		0			
TOTAL	100	100	100	100		100	100	100	100

 $\frac{1}{}$ Goal titles are as follows:

0. An early administrative classification that was discontinued.

I. Insure a stable and productive agriculture for the future through wise management of natural resources.

II. Protect forests, crops and livestock from insects, diseases and other hazards.

III. Produce an adequate supply of farm and forest products at decreasing real production costs.

IV. Expand the demand for farm and forest products by developing new and improved products and processes and enhancing product quality.

V. Improve efficiency in the marketing system.

VI. Expand export markets and assist developing nations.

VII. Protect consumer health and improve nutrition and well-being of the American people.

VIII. Assist rural Americans to improve their level of living.

IX. Promote community improvement including development of beauty, recreation, environment, economic opportunity, and public services.

Table 9. SAES Allocations to Marketing Economics by Research Problem Area (EPA), United States, 1970, & 1975, 1980 and 1985.

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	Goal and RPA		Unite	d States	
		1970	1975		
			Pe	rcent	
Goal IV	Expand the Demand for Farm and Forest Products by Developing New and Improved Products and Processes and Enhancing Product Quality.				
402 -	Production of fruit and vegetable crops with improved acceptability	.23	.14	.03	.05
404 -	Quality maintenance in storing and marketing fruits and vegetables	.25	.02	.05	.26
405 -		0	.55	0	.06
407 -	New and improved feed, textile and industrial crops from field crops	0	0	0	.01
408 -	Quality maintenance in storing and marketing field crops	.59	.09	.06	.21
409 -	Production of animal products with improved acceptability	.28	.57	.36	.19
410 -	and the state of t	0	0	.11	0
412 -	Quality maintenance in marketing animal products	.55	19	21	36
	Total	1.90	1.55	.82	1.14
Goal V	Improve Efficiency in the Marketing System				
501 - 502 -	Improvement of grades and standards crop and animal products Development of markets and efficient marketing of timber and	.86	1.08	1.92	1.07
	related products	3.56	1.35	2.22	2.47
503 -	Efficiency in marketing agricultural products and production inputs	30.65	29.98	21.32	16.85
506 -	Supply, demand and price analysis crop and animal products	18.14	17.58	23.32	25.44
507 -	Competitive interrelationships in agriculture	9.95	5.01	5.67	5.98
508 -	Development of domestic markets for farm products	5.08	5.41	4.34	2.41
509 -	The state of the s	15.98	19.64	20.77	21.50
510 -	and marked boact	1.78	3.04	2.77	2.26
511 -	O	2.68	2.47	3.01	2.25
512 -	and a present and president of total broaders	.12	.07	.14	.03
513 -	Supply, demand and price analysis forest product		1.54	1.52	1.84
	Total	89.55	87.16	87.01	82.10

continued

	Goal and RPA		Unite	d States	3
		1970	1975	1980	1985
			Pe	rcent	
Goal VI	Expand Export Markets and Assist Developing Nations				
601 - 602 - 603 - 604 -	Foreign market development Evaluation of foreign food Technical assistance to developing countries Product development and marketing for foreign markets	5.03 0 .76 0	5.95 0 .46 <u>.79</u>	7.05 .34 .58 <u>.03</u>	8.43 .07 .32 <u>.67</u>
	Total	5.79	7.20	8.01	9.49
Goal VII	Protect Consumer Health and Improve Nutrition and Well-Being of the American People				
703 - 704 - 705 - 708 -	Food choices, habits and consumption Home and commercial food service Selection and care of clothing and household textiles Human nutrition Total	1.76 .53 .19 <u>.29</u> 2.77	1.63 1.81 .52 13 4.10	2.29 .77 .39 <u>.29</u> 3.73	3.96 .56 0 <u>.16</u> 4.68
Goal VIII	Assist Rural Americans to Improve Their Level of Living				
807 - 808 -	Structural changes in agriculture Government programs to balance farm output and market demand TOTAL MARKETING ECONOMICS	$\frac{0}{0}$	0 0 100.0	.43 0 100.0	1.71

TABLE 10. SAES Allocations to Marketing Economics by Activity, United States 1970, 1975, 1980 and 1985.

			Unite	d States	
Effic	ient production and quality improvement	1970	1975	1980	1985
			per	cent	
5100	Increasing consumer acceptability of farm and forest products	.67	.79	.52	.18
Effic quali	ient marketing, including pricing and ty				
5800	Identification, measurement and maintenance of quality	2.40	2.43	3.48	1.73
5900	Improving economic and physical efficiency in marketing, including analysis	50.40	50.35	41.83	40.83
6000	of market structure and functions Analysis of supply, demand and price, including interregional competition	28.81	22.78	30.25	31.16
6100	Developing domestic markets, consumer preference and behavior	5.70	5.52	3.58	1.48
6200	Foreign trade, market development and competition	5.15	7.15	6.85	7.55
	TOTAL	92.46	88.23	85.98	82.75
	vement of human nutrition and consumer faction				
6300	Human nutrition	2.34	3.33	0	0
6310	Nutrient composition of food	0	0	.11	.03
6340	Food consumption patterns and use	0	0	1.64	2.89
6370	Human nutrition and behavior	0	0	0	.35
6380	Human nutrition monitoring and surveillance	0	0	.16	.32
6390	Eating quality of food	0	3.33	1.93	01
	TOTAL	2.34	3.33	1.93	3.60
Gener	al methodology, technology and				
evalu					
7300	Evaluation of public programs, policies and services	1.85	5.00	8.34	10.88
7400	Improvement of agricultural statistics	2.38	2.06	2.28	2.07
7500	Development of research equipment and and technology	30		94	51
	TOTAL	4.52	7.64	11.56	13.47
	TOTAL MARKETING ECONOMICS	100.0	100.0	100.0	100.0

The decline in federal emphasis apparently did not reflect priorities within the states, as state appropriations for marketing research increased to offset the federal reduction. And, although diminishing federal support impacted marketing economics particularly heavily, nonfederal increases in funding of marketing economics research through state appropriations was especially noteworthy. This may reflect some response to a growing recognition of the importance of marketing, which in the agricultural sector accounts for an increasing share of total retail value. Emphasis in marketing research appeared to be shifting toward macro and policy type issues and away from firm and physical efficiency research.

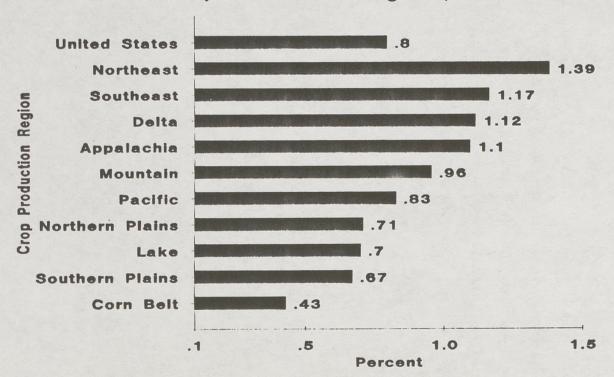
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Chart 7. Total SAES Expenditures as Percent of Total Cash Receipts from Farm Marketings (Including Net Commodity Corporation Loans), United States and Crop Production Regions, 1985



Appendix Table 1. Research Program Areas (RPAs) and Activities that Include Research in Marketing Economics. 1

NPA				Activity		216,070,0		
401	5100	5800	5900	6390				
402	5100	5800	5900	6390				
403	5100	5800	5900	6390				
404	5100	5800	5900	6390				
405	5100	5800	5900	6390				
406	5100	5800	5900	6390				
407	5100	5800	5900	6390				
408	5100	5800	5900	6390				
409	5100	5800	5900	6390				
410	5100	5800	5900	6390				
411	5100	5800	5900	6390				
412	5100	5800	5900	6390				
501	5800	5900	6000	6100	6200	7300	7400	7500
502	5800	5900	6000	6100	6200	7300	7400	7500
503	5800	5900	6000	6100	6200	7300	7400	7500
506	5800	5900	6000	6100	6200	7300	7400	7500
507	5800	5900	6000	6100	6200	7300	7400	7500
508	5800	5900	6000	6100	6200	7300	7400	7500
509	5800	5900	6000	6100	6200	7300	7400	7500
510	5800	5900	6000	6100	6200	7300	7400	7500
511	5800	5900	6000	6100	6200	7300	7400	7500
512	5800	5900	6000	6100	6200	7300	7400	7500
513	5800	5900	6000	6100	6200	7300	7400	7500
601	6200	7300						
602		7300						
603	5100	5800	5900	6000	6200			
604		5800	5900	6000	6200			
703	6300	6310	6340	6370	6380	6390	7000	7300
704	5800	5900	6300	6310	6340	6370	6380	6390
705	5100							
708	6300	6310	6340	6370	6380	7300		
807 808	6000							

Imarketing economics is defined as Field of Science 2630 (Economics) within specified activities, by Research Program Area (RPA).

The Research Problem Areas and activities were selected with the assistance of Roland R. Robinson and Richard g. Garner, Cooperative Research Service, U.S. Department of Agriculture, John R. Myers, Director of Current Research Information System (CRIS) provided guidance in organizing the computer tabulation and in providing computer.

Appendix Figure 1. Groups of States Used in Regional Comparisons of State Agricultural Experiment Station Funding.

