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

by

Paul L. Farris and Roland R. Robinson[1/]

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 1970 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:

1. Changes in total funding of state agricultural experiment stations (SAES) for research in economics and marketing economics, for the United States and by crop production regions, by funding source, between 1970 and 1985.
2. Changes in funds allocated to economics and to marketing economics from federal and nonfederal sources during this period.
3. Allocations of total SAES expenditures, and marketing economics expenditures by type of spending, 1970 to 1985.

1/ Professor of Agricultural Economics, Purdue University and Principal Agricultural Economist, Cooperative State Research Service, U.S.D.A.

Prepared for presentation at AAEA annual meeting, Knoxville, Tennessee, August 2, 1988.

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. Nonfederal funding, primarily state appropriations, made up the difference.

SAES Economics 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 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 6.48 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 1-US. Total Research Funds Available to State Agricultural Experiment Stations by Funding Source, United States, 1970, 1975, 1980 and 1985.

Funding Source	1970	1975	1980	1985
	thousand dollars			
Total SAES	314,709	482,206	804,844	1,145,957
	percent of total			
Total SAES	100.0	100.0	100.0	100.0
Federal	29.270	26.441	28.408	27.144
CSRS	18.450	17.122	17.004	16.554
Hatch and RRF	17.077	15.349	14.138	12.935
McIntire-Stennis	.952	1.097	.912	.840
Special Grants	0	0	1.180	1.671
Competitive Grants	0	0	0	.674
Animal Health	0	0	.670	.358
Other CSRS	0	.123	.089	.076
Other USDA	2.285	2.232	3.027	2.708
Other Federal	8.536	7.088	8.377	7.881
Non-Federal	70.730	73.559	71.592	72.956
State appropriations	56.617	58.030	55.532	56.238
Product Sales	7.327	7.656	6.862	5.700
Industry Grants	4.448	4.868	5.694	6.338
Other	2.339	3.004	3.503	4.579

TABLE 3-US. Total Research Funds Allocated to Marketing Economics by State Agricultural Experiment Stations, by Funding Source, United States, 1970, 1975, 1980 and 1985.

Funding Source	1970	1975	1980	1985
	thousand dollars			
Total Marketing Economics	8,039	10,119	17,732	28,161
	percent of total			
Total Marketing Economics	100.0	100.0	100.0	100.0
Federal	57.592	54.437	43.420	36.079
CSRS	53.574	47.576	32.779	26.293
Hatch and RRF	52.637	46.539	30.254	23.634
McIntire Stennis	.659	.772	.343	.896
Special Grants	0	0	2.097	1.764
Competitive Grants	0	0	0	0
Animal Health	0	0	0	0
Other CSRS	0	.100	.086	0
Other USDA	2.853	4.559	6.966	7.375
Other Federal	1.164	2.301	3.675	2.411
Non-Federal	42.208	45.563	56.580	63.921
State Appropriations	36.502	37.985	50.278	56.077
Product Sales	1.081	.966	1.743	1.744
Industry Grants	2.092	3.587	1.952	2.163
Other	2.733	3.025	2.606	3.937

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

	Increase, 1970-85		
	Total SAES	All Economics	Marketing Economics
	percent		
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, United States, 1970, 1975, 1980 and 1985.

		CSRS Allocations to		
Year	Total SAES funds from CSRS	Economics (2630)	Non-Marketing Economics	Marketing Economics
	$ thousand	percent		
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

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

GOAL[1/]	TOTAL SAES				MARKETING ECONOMICS			
	1970	1975	1980	1985	1970	1975	1980	1985
	thousand dollars							
	314,709	482,206	804,844	1,145,957	8,039	10,119	17,732	28,161
	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	0	0	0
TOTAL	100	100	100	100	100	100	100	100

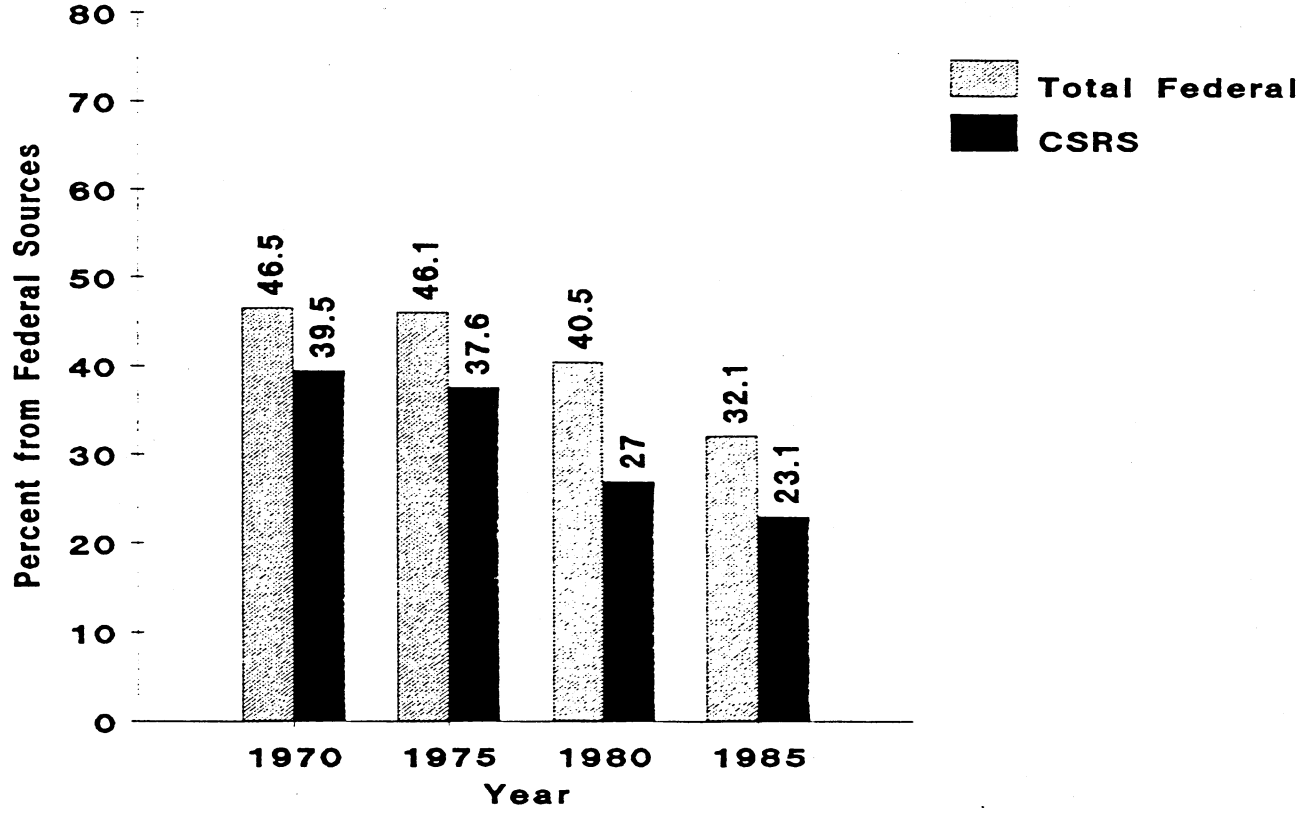
1/ Goal titles are as follows:

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

Efficient production and quality improvement		United States 1970	1975	1980	1985
		percent			
5100	Increasing consumer acceptability of farm and forest products	.67	.79	.52	.18
Efficient marketing, including pricing and quality					
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 of market structure and functions	50.40	50.35	41.83	40.83
6000	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
Improvement of human nutrition and consumer satisfaction					
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	0	.02	.01
	TOTAL	2.34	3.33	1.93	3.60
General methodology, technology and evaluation					
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	.59	.94	.51
	TOTAL	4.52	7.64	11.56	13.47
	TOTAL MARKETING ECONOMICS	100.0	100.0	100.0	100.0

Chart 2. Percent of SAES Economic Research Funds from Federal and Nonfederal Sources, 1970, 1975, 1980, and 1985



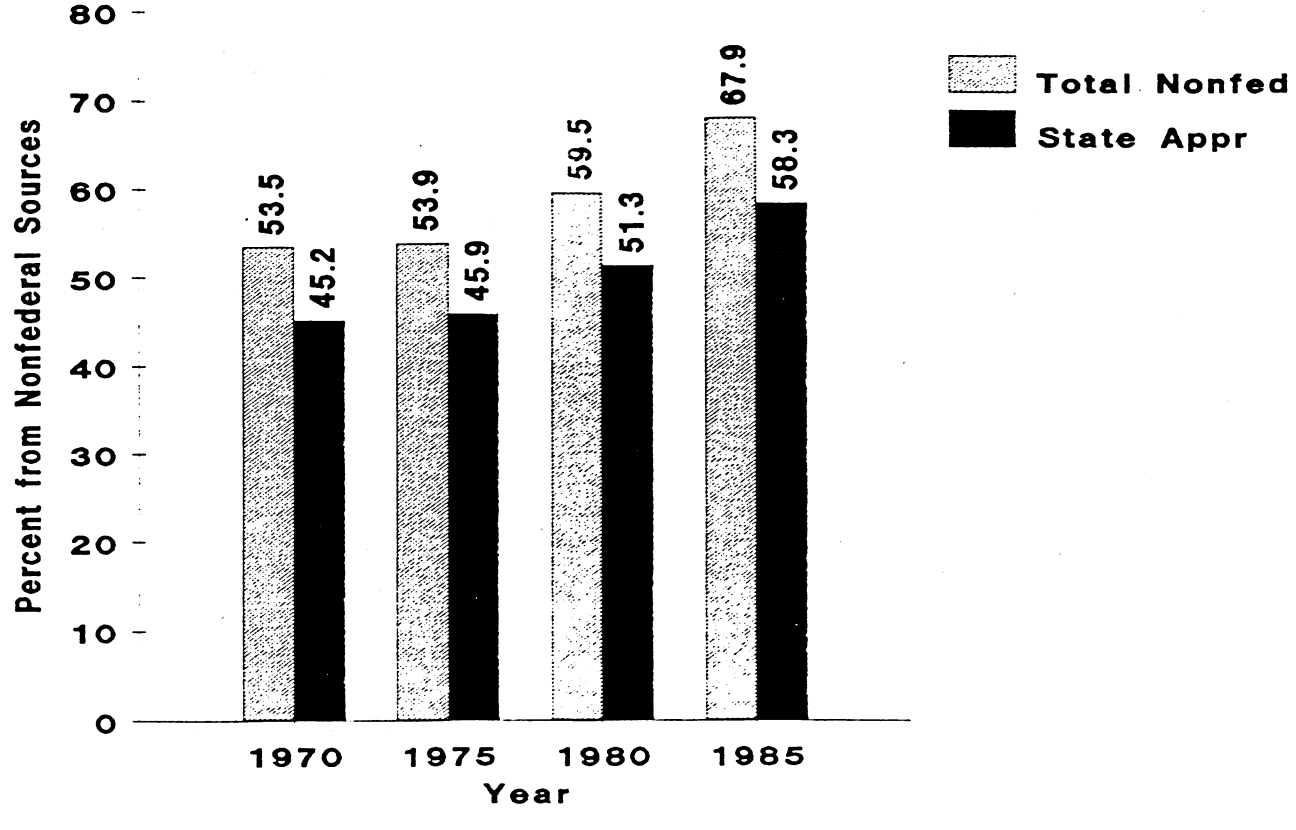
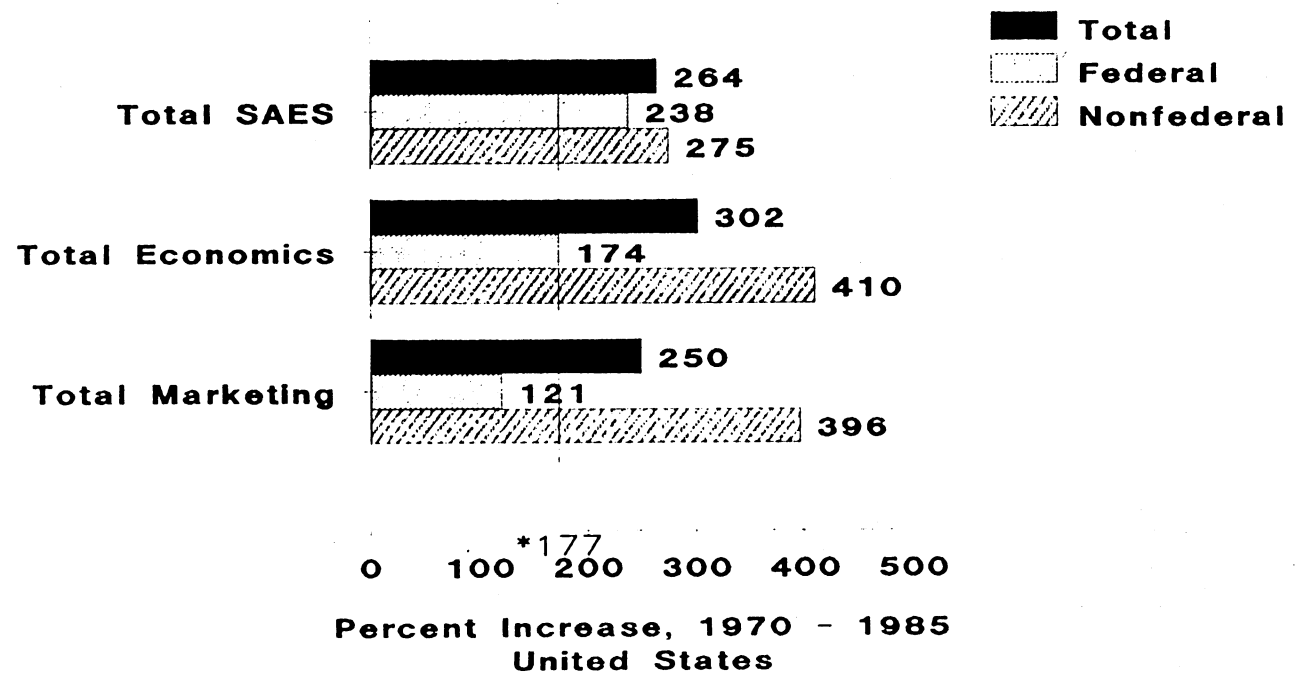
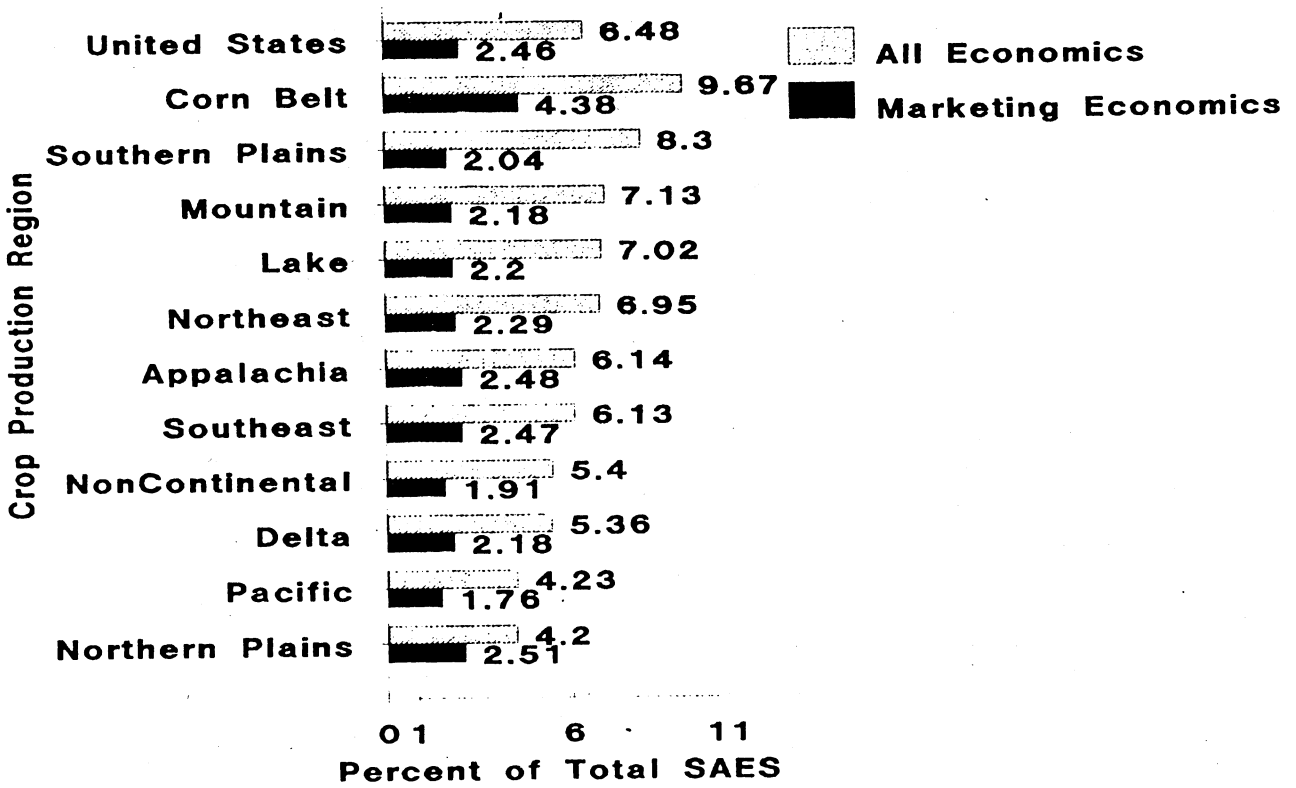


Chart 4. Percent Increase in State Agricultural Experiment Station Funding, 1970 - 1985, Total Economics and Total Marketing, by Major Funding Source, United States



*(CPI)

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



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

RPA	ACTIVITY							
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	6390	7300	
807	6000							
808	5900							

[1/] Marketing economics is defined as Field of Science 2630 (Economics) within the 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 analysis of the data.