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THE ALTERNATIVE FUNDING OF AGRICULTURAL ECONOMICS RESEARCH: THE EXPERIENCE OF THE PAST DECADE AND CHALLENGE TO THE PROFESSION

by

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INTRODUCTION

Christensen and Robinson carefully document the relative decline in federal funding support for economics research in the State Agricultural Experiment Stations (SAES). Within the category of federal funding, they note the sharp erosion of support from CSRS sources relative to that provided by USDA cooperative grants and agreements and by allocations from other federal (non-USDA) agencies. The obvious implication is that alternative (nonfederal) sources have become of increasing importance to the funding of economics research programs in SAES institutions.

The central question is whether the relative shifts in funding sources might have an impact on the research contributions of individuals and departments, and if so, might the impact be for the better or for the worse? It is unlikely that there is a generalizable, valid response to the query. Yet, it may justly deserve our serious consideration for it is not difficult to accept the general notion that shifting sources of research support are likely to have exerted incremental changes in research agendas and in the kind of research that is now "supportable" in departments of agricultural economics in the mid-1980s. And should the trends continue, the forces in motion might seriously influence how we go about meeting the substantive research challenges of the 1990s.

This paper seeks to establish some, albeit a quite limited, basis for further discussion by examining selected aspects of recent changes in support for economics research and by providing initial comments on

alternative funding opportunities and on challenges for agricultural economists and for programs of agricultural economics research.

CHANGES IN ECONOMICS RESEARCH FUNDING, 1971-73 TO 1981-83

The discussion of the changing composition of research funding support is based on examination of CRIS data (the same source used by Christensen and Robinson), but with a slightly different identification of reference points. Data were made available for annual allocations for both SAES and economics research expenditures, by state, for the period 1970 through 1983. (Data for 1984 will not be available until late summer 1985.) Three-year averages are used to smooth possible annual fluctuations for the selected periods 1971-73, 1976-78, and 1981-83. More credence should be placed upon the two extremes because of the possible influence of the change in federal fiscal year in the bicentennial year. The data reported refer to all SAES economics research which includes not only agricultural economics, but also economics research in home and forestry economics.

Table 1 shows economics research support, by major aggregate classifications and source of funding. Total support from all sources increased from $21.7 million in 1971-73 to slightly more than $56 million in 1981-83, a change of 260 percent over the decade. The greatest relative growth was in funding from nonfederal sources (343 percent change) with roughly equal changes in the two sub-categories: state appropriations (B-1) and the residual, which is here identified as "other" nonfederal sources (B-2). In 1971-73,

federal funds provided 53 percent of economics research support at SAES institutions. That has now fallen by nearly a third to 37 percent of total support only a decade later. Lest one scamper hastily to the conclusion that economics research has been discriminated against relative to total SAES funding support, federal funds contributed 30 percent of the total SAES budget in 1971-73 and 29 percent in 1981-83. The point is not that economics may not be receiving a fair share (not as big a piece of the pie as before), but rather that the economics proportion has declined towards levels of overall research support at SAES institutions. In the past, economics research relied on a greater proportion of federal funding than SAES research in aggregate--and it still does, though to a far lesser extent. The offsets to the declining share from federal funding sources are largely from increased state appropriations, which, in aggregate, now provide the majority (54 percent) of funding support.

There might be some temptation in a session such as this to try to chart out the successful course to alternative funding sources for economics research, but even a cursory examination of the data contained in Table 2 should dampen that idea. The array clearly shows sharp differences in the composition of economics research funding sources among states and regions. While the tabular information is for somewhat aggregated data (corresponding to the categories established in Table 1), it nonetheless provides quick contrasts to the "truths" of our respective local situations with those in other places.

Table 3 shows changes in the composition of economics research funding in the four regions in each of the selected time periods. Whereas all regions had a relative decline in federal funding from CSRS-administered sources over the decade, there were increases from federal non-CSRS administered sources in all but the Northeast. The decrease in relative funding from both CSRS and non-CSRS federal sources were: -23 percent in the Northeast, -21 percent in the South, -13 percent in the West, and -6 percent in the North Central region.

These decreases in federal funding sources were offset by increased funding from nonfederal sources with most of the relative increase coming from state appropriations. That source contributed increased shares ranging from 21 percent in the South, to 7 percent in the North Central region. Considering the 260 percent change in total support of economics research over the decade, the increased share from state appropriations reflects an amazing shift to more localized support for economics research. The relative magnitudes can also be inferred from examination of state data in Table 2. For example, in 1983 state appropriations provided nearly $2.6 million of the $3.1 million allocated to SAES economics research in California, and data for several other states seem to reflect even higher percentages of total support from state appropriations.

The remaining nonfederal funding sources ("other" in Table 3) are identified in the CRIS reporting system as SAES product sales, industry and "other," where the latter category includes local governments, professional societies, individuals, banks, and other nonfederal

sources. Since SAES product sales reflect allocations internal to each agricultural experiment station, they must be viewed as discretionary station allocations to economics research. (I have yet to observe an agricultural economist working an experiment station plot, so doubt that few could lay valid claim to a saleable agricultural product). The "other" of the "industry and 'other'" component of nonfederal funding sources includes local government grants and contracts from governments with less than federal status, i.e., from local city and county governments and from nonappropriated state sources. [Only a federal system would support that dichotomous definition of "local" government!]

A major relative increase (10 percent) in "other" sources is noted in the Northeast. In 1981-83, $228,000 came from northeastern SAES product sales, $130,000 from industry, and $638,000 from these "other" sources (Table 4). Funding from all "other" sources increased 5 percent in the West, with little to no change observable for the South and the North Central regions (Table 3). Table 4 gives the relative growth in industry and "other" sources of nonfederal funding.

CHALLENGE TO THE PROFESSION

The topic of agricultural economics research, and the funding thereof, is almost an annual event at these meetings. Agricultural economists seem wont to express concern about the current state in presidential addresses and in symposia (see, for example, recent additions to December issues by Harl, Havlicek, Hoch, Phillips and

Dalrymple, Stanton and Farrell, Swanson, and Toussaint). Similarly, this present venture is to question how observed changes in the source of agricultural economics research funding might affect our research agendas, whether the effect might be good or bad, and how our ability to meet the substantive challenges of the next decade, and beyond, might be affected.

Does the change in source of funding make a difference? The answer is no, only if we believe that our programs are unaffected by how our SAES directors choose to support institutional research in agricultural economics. Even if that were a happy truth for the short-run (if you do so believe, I've a hell of a deal on a bridge for you!), it is unlikely that the size of the pie can be so maintained over the longer run, let alone be increased to meet expected challenges.

Stanton and Farrell opine that direct support of agricultural economics research in the budget-making process is diffuse and weak; Toussaint believes that agricultural economics research has declined in value in the eyes of station directors in recent years; Schuh questions our relevancy to the problems of society, as do others among the authors of December. We have not shared in the shift of CSRS funds to special and competitive grants because of the lack of disciplinary representation, the explicit intent of directors, and the lack of social science support by agricultural committees in Congress (Phillips and Dalrymple). For example, there is considerable difference in how one views the possibility for agricultural economics research among current priorities set by the National Agricultural Research and Extension Users

Advisory Board and those established by the Joint Council on Food and Agricultural Sciences. The Users' list exhibit applied problems and policy issues, while the Joint Council's reflects a strong basic science, technology orientation. Of the FY1985 Special Grants funding of $27,328 million, only three activities totalling $917,000 (NC-117, the rural development centers, and the Agricultural Policy Institute at Missouri) relate to social science research. The $46 million Competitive Research Grants program is solely cast among plant science, human nutrition, animal science, pest science, and biotechnology--the last for a hefty $20 million, and likely to be expanded in the current budget. Despite considerable past (often bitter) criticism of mechanization and other technological contributors to change in farm structure and on other aspects of societal concern, the programs favored by research administrators are relatively silent on the need for impact or economic analyses. We should strive for inclusion. Our integrating expertise is likely to be again called upon when the next cycle of critism appears. We've served that role before (see, for example, Carter and Johnston; Martin and Olmstead) and need be more involved from the outset as the new technologies are developed and move into commercial application.

What are some implications to be derived from the greater diversity in sources of funding? The level of federal funding sources has diminished steadily. We are likely to see a further softening if the reduction in ERS field staff affects our ability to attract USDA cooperative grants and agreements as I expect to be the case, especially

for those of us more than a day's commute out of Washington, D.C. The extent that state appropriations and contract research may come to dominate our budgets may influence research agendas in the direction of more applied research than is common to current tastes and may raise further questions of our relevance to important policy issues. The shift to more localized support in research funding may well provide incentives to cover a wider spectrum in the research milieu, include the prospect of more cooperative work with agricultural, biological, and natural sciences, and (hopefully) reverse our progressive isolation from the rest of the agricultural research community (Phillips and Dalrymple).

Economics is an integrating science in its applications to real problems, yet we seem unable to engender increased professional interest in the pursuit of societal problems. Our professional goals, set largely by the reward system and the purity of our contemporary training contribute to the existence of tremendous barriers to problem-solving research. Stanton and Farrell suggest that our isolation from agriculture may inhibit interdisciplinary, mission-oriented research of the type needed to resolve many of the problems of the 1980s. An equally valid concern is that agricultural economics needs to be recognized as an applied economics discipline well grounded in contemporary economic thought and practice, and no longer a genetically separate strain arising from agronomy and farm management. The hopeful blending of contemporary skills with a dedication to mission-oriented

research would do much to enhance the self-image and external reputation of the profession.

More diverse sources of funding and the associated instability therein may give cause for reflection about society's changing needs for our research expertise, and on the organizational forms that may be required for our profession to meet more fully the substantial challenges before us. Might the changes be good or bad? The December issues of the mid-1990s will likely chronicle our ability to respond.

FOOTNOTES

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Table 1. Changing Composition of Economics Research Funding in State Agricultural Experiment Stations, by Source: 1971-73, 1976-78, and 1981-83

Funding Sources	Average Annual Funding Levels 1971-73	1976-78	1981-83	Change 1971-73 to 1981-83
	(thousands)			(percent)
I. Total economics funding from all sources:	$21,721	$36,113	$56,028	260
A. Federal funding	$11,407	$16,591	$20,636	181
A-1. CSRS administered[a]	9,072	12,974	13,987	154
A-2. non-CSRS administered[b]	2,335	3,617	6,649	285
B. Nonfederal funding	$10,313	$19,522	$35,392	343
B-1. State appropriations	8,824	16,707	30,160	342
B-2. Other non-federal sources[c]	1,489	2,815	5,232	351
II. Percentage of economics funding, by source:		(percent of total)		
A. Federal funding	53	46	37	-16
A-1. CSRS administered[a]	42	36	25	-17
A-2. non-CSRS administered[b]	11	10	12	+1
B. Nonfederal funding	47	54	63	+16
B-1. State appropriations	41	46	54	+13
B-2. Other non-federal sources[c]	6	8	9	+3

Source: USDA Cooperative State Research Service, CRIS Reporting System

[a]Hatch/RRF, 1890 Colleges and Tuskegee Institute, McIntire-Stennis, Special Grants, Competitive Grants, other.

[b]USDA cooperative grants and agreements, other federal agencies (NSF, DOI, DOE, AID, DOD, NIH, PHS, HHS, NASA, TWA, and others).

[c]SAES product sales, industry, and "other"--local governments, professional societies, individuals, banks and other nonfederal sources.

Table 2. Composition of Economics Research Funding in State Agricultural Experiment Stations, by Source, 1983

Region: State	Total funding all sources	Federal Funding			Nonfederal Funding		
		Total	CSRS Administered	non-CSRS Administered	Total	State Appropriation	Other
			(thousands)				
Northeast:	$7,670	$3,110	$2,549	$561	$4,560	$3,602	$958
Connecticut	391	126	126	0	264	245	19
Delaware	350	187	179	8	162	131	31
Massachusetts	352	186	137	49	166	136	30
Maryland	615	242	242	0	373	373	0
Maine	341	173	133	40	168	129	39
New Hampshire	201	110	90	20	91	89	2
New Jersey	492	223	217	6	269	232	37
New York	2,452	415	327	188	1,936	1,238	698
Pennsylvania	1,153	575	510	65	577	546	31
Rhode Island	404	278	133	145	126	117	9
Vermont	271	144	142	2	127	126	1
West Virginia	650	352	314	38	298	240	58
South:	$20,419	$6,470	$4,898	$1,572	$13,949	$12,321	$1,628
Alabama	896	410	402	8	485	430	55
Arkansas	851	427	354	73	424	367	57
Florida	1,828	346	173	173	1,480	1,399	81
Georgia	3,271	784	450	334	2,487	2,299	188
Kentucky	1,194	659	659	0	535	535	0
Louisiana	1,147	292	287	5	855	816	39
Mississippi	1,552	488	296	192	1,054	699	355
North Carolina	1,335	457	314	143	876	774	102
Oklahoma	1,484	293	261	32	1,191	1,109	82
Puerto Rico	446	199	199	0	247	207	40
South Carolina	731	335	335	0	395	395	0
Tennessee	1,305	566	534	32	739	603	136
Texas	2,912	686	408	278	2,226	1,947	279
Virginia	1,460	522	220	302	937	737	200
Virgin Islands	9	6	6	0	3	3	0

(continued)

Table 2. (continued)

Region: State	Total funding all sources	Federal Funding			Nonfederal Funding		
		Total	CSRS Administered	non-CSRS Administered	Total	State Appropriation	Other
				(thousands)			
North Central:	$17,434	$6,416	$4,328	$2,088	$11,018	$9,672	$1,346
Illinois	1,691	830	617	213	861	741	120
Indiana	1,892	879	477	402	1,014	946	68
Iowa	2,447	923	519	404	1,525	1,304	221
Kansas	896	253	241	12	642	602	40
Michigan	2,148	638	408	230	1,510	1,272	238
Minnesota	1,417	755	460	295	662	655	7
Missouri	1,797	576	284	292	1,223	880	343
North Dakota	1,138	163	102	61	975	770	205
Nebraska	612	157	153	4	455	414	41
Ohio	1,439	382	378	4	1,056	1,056	0
South Dakota	346	85	85	0	260	256	4
Wisconsin	1,613	778	606	172	836	776	60
West:	$12,298	$4,095	$2,555	$1,540	$8,202	$7,005	$1,197
Alaska	143	66	66	0	77	77	0
Arizona	1,408	531	152	379	878	723	155
California	3,126	563	256	307	2,562	2,338	224
Colorado	964	673	359	314	291	190	101
Guam	132	74	74	0	58	58	0
Hawaii	565	148	128	20	417	371	46
Idaho	929	242	194	48	686	616	70
Montana	539	164	127	37	375	311	64
Nevada	531	194	146	48	356	314	32
New Mexico	771	229	215	14	542	447	95
Oregon	968	494	337	157	474	388	86
Utah	590	213	130	83	378	374	4
Washington	1,304	350	218	132	952	635	317
Wyoming	324	161	152	9	163	161	2
Total	$57,821	$20,091	$14,331	$5,760	$37,729	$32,600	$5,129

Source: USDA Cooperative State Research Service CRIS Reporting System. (See Table 1 for funding source identification; sums may not add due to rounding.)

Table 3. Regional Changes in Composition of Economics Research Funding in State Agricultural Experiment Stations, by Source: 1971-73, 1976-78 and 1981-83.

Region	Source		Average Annual Funding Level 1971-73	1976-78	1981-83	Change 1971-73 to 1981-83
			(percent of total)			
Northeast	Federal:	CSRS-administered	43	47	35	-8
		non-CSRS administered	22	7	7	-15
	Nonfederal:	State Appropriations	31	38	44	+13
		Other[a]	4	8	14	+10
South	Federal:	CSRS-administered	51	39	26	-25
		non-CSRS administered	4	6	8	+4
	Nonfederal:	State Appropriations	37	48	58	+21
		Other[a]	8	7	8	0
North Central	Federal:	CSRS-administered	35	32	24	-11
		non-CSRS administered	10	13	15	+5
	Nonfederal:	State Appropriations	47	46	54	+7
		Other[a]	8	7	7	-1
West	Federal:	CSRS-administered	38	30	19	-19
		non-CSRS administered	11	12	17	+6
	Nonfederal:	State Appropriations	45	50	53	+8
		Other[a]	6	8	11	+5

Source: USDA Cooperative State Research Service CRIS Reporting System. (See Table 1 for funding source information.)

[a]SAES product sales, industry, and "other"--local governments, professional societies, individuals, banks and other nonfederal sources.

Table 4. Regional Changes in Industry and "Other" Funding of Economics Research in State Agricultural Experiment Stations, 1971-73 and 1981-83.

Funding Source: Region	Average Annual Funding Levels 1971-73	1981-83	Change 1971-73 to 1981-83
	(thousands)		(percent)
Industry:	$635	$1,314	207
Northeast	85	130	153
South	170	530	312
North Central	259	325	125
West	121	329	277
"Other":	$566	$2,472	437
Northeast	66	638	967
South	237	597	252
North Central	197	619	314
West	66	618	936

Source: USDA Cooperative State Research Service CRIS Reporting System.