

# **Appendix B.-Agricultural Research and Extension Funding Tables**

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Table B-1—Federal Expenditures by State for Agricultural, Forestry, and Veterinary Research and Development, As Reported by CRIS, FY86 (in dollars)

State	HATCH <sup>a</sup>	COMP <sup>b</sup>	SPGT <sup>c</sup>	Other CSRS <sup>d</sup>	Total CSRS <sup>e</sup>	CGCA <sup>f</sup>	Total USDA <sup>g</sup>	Other Federal <sup>h</sup>	Total Federal <sup>i</sup>	Percent of total from other Federal <sup>j</sup>
Alabama	3,242,000	115,000	206,000	475,000	4,037,000	199,000	4,236,000	326,000	4,562,000	7.1
Alaska	808,000	0	6,000	198,000	1,012,000	0	1,012,000	0	1,012,000	00.0
Arizona	1,565,000	399,000	29,000	260,000	2,353,000	404,000	2,757,000	1,399,000	4,156,000	33.7
Arkansas	2,789,000	233,000	3,030,000	444,000	3,769,000	583,000	4,352,000	259,000	4,611,000	5.6
California	4,083,000	1,191,000	85,000	803,000	8,261,000	1,541,000	9,802,000	13,984,000	23,786,000	58.8
Colorado	2,203,000	0	30,000	291,000	2,524,000	1,578,000	4,102,000	8,505,000	12,607,000	67.5
Connecticut	1,435,000	0	77,000	163,000	1,775,000	3,000	1,778,000	656,000	2,434,000	27.0
Delaware	1,048,000	46,000	28,000	90,000	1,212,000	53,000	1,265,000	145,000	1,410,000	10.3
District of Columbia	472,000	0	0	0	472,000	0	472,000	0	472,000	00.0
Florida	2,341,000	722,000	1,249,000	339,000	4,651,000	1,705,000	6,356,000	2,976,000	9,332,000	31.9
Georgia	3,749,000	163,000	75,000	416,000	4,403,000	506,000	4,909,000	891,000	5,800,000	15.4
Hawaii	1,057,000	0	652,000	104,000	2,813,000	222,000	3,035,000	2,834,000	5,869,000	48.3
Idaho	1,672,000	0	339,000	22,000	2,033,000	1,326,000	3,359,000	600,000	3,959,000	15.2
Illinois	4,359,000	229,000	68,000	257,000	5,014,000	1,828,000	6,842,000	2,269,000	9,111,000	24.9
Indiana	3,915,000	479,000	75,000	346,000	5,454,000	828,000	6,282,000	5,666,000	11,948,000	47.4
Iowa	2,270,000	227,000	413,000	181,000	5,437,000	1,647,000	7,084,000	1,397,000	8,481,000	16.5
Kansas	2,763,000	404,000	290,000	282,000	3,739,000	564,000	4,303,000	3,756,000	8,059,000	46.6
Kentucky	3,979,000	0	0	346,000	4,325,000	0	4,325,000	0	4,325,000	00.0
Louisiana	2,594,000	43,000	226,000	333,000	3,194,000	215,000	3,409,000	574,000	3,983,000	14.4
Maine	1,474,000	268,000	92,000	370,000	2,204,000	236,000	2,440,000	928,000	3,368,000	27.6
Maryland	1,984,000	249,000	57,000	213,000	2,504,000	0	2,504,000	0	2,504,000	00.0
Massachusetts	1,790,000	268,000	28,000	162,000	2,247,000	560,000	2,807,000	151,000	2,958,000	5.1
Michigan	3,993,000	711,000	324,000	249,000	6,277,000	682,000	6,959,000	5,231,000	12,190,000	42.9
Minnesota	3,955,000	211,000	168,000	369,000	4,702,000	1,109,000	5,811,000	1,057,000	6,868,000	15.4
Mississippi	3,379,000	73,000	303,000	438,000	5,192,000	918,000	6,110,000	648,000	6,758,000	9.6
Missouri	3,716,000	289,000	785,000	397,000	5,186,000	539,000	5,725,000	1,589,000	7,314,000	21.7
Montana	1,673,000	32,000	129,000	79,000	1,913,000	150,000	2,063,000	845,000	2,908,000	29.1
Nebraska	2,647,000	183,000	278,000	267,000	3,374,000	2,615,000	5,989,000	1,353,000	7,342,000	18.4
Nevada	980,000	116,000	18,000	87,000	1,202,000	67,000	1,269,000	351,000	1,620,000	21.7
New Hampshire	1,152,000	0	5,000	192,000	1,349,000	0	1,349,000	0	1,349,000	00.0
New Jersey	2,168,000	68,000	1,011,000	158,000	3,405,000	41,000	3,446,000	502,000	3,948,000	12.7

New Mexico	1,309,000	0	93,000	230,000	1,632,000	566,000	2,198,000	187,000	2,385,000	7.8
New York	4,435,000	861,000	748,000	143,000	6,187,000	1,175,000	7,362,000	11,587,000	18,949,000	61.1
North Carolina	5,289,000	756,000	392,000	484,000	6,921,000	1,867,000	8,788,000	7,043,000	15,831,000	44.5
North Dakota	1,917,000	32,000	218,000	118,000	2,285,000	272,000	2,557,000	402,000	2,959,000	13.6
Ohio	4,649,000	171,000	332,000	304,000	5,456,000	138,000	5,594,000	36,000	5,630,000	0.6
Oklahoma	2,480,000	139,000	276,000	330,000	3,226,000	163,000	3,389,000	334,000	3,723,000	9.0
Oregon	2,255,000	325,000	792,000	47,000	3,419,000	551,000	3,970,000	4,349,000	8,319,000	52.3
Pennsylvania	4,904,000	266,000	714,000	354,000	6,239,000	447,000	6,686,000	2,049,000	8,735,000	23.5
Puerto Rico	3,518,000	0	568,000	13,000	4,099,000	0	4,099,000	0	4,099,000	00.0
Rhode Island	1,003,000	0	34,000	67,000	1,104,000	0	1,104,000	207,000	1,311,000	15.8
South Carolina	2,790,000	0	583,000	22,000	3,394,000	0	3,394,000	34,000	3,428,000	1.0
South Dakota	1,956,000	0	0	181,000	2,137,000	0	2,137,000	0	2,137,000	00.0
Tennessee	3,845,000	51,000	226,000	334,000	4,456,000	83,000	4,539,000	301,000	4,840,000	6.2
Texas	5,138,000	281,000	480,000	532,000	6,431,000	2,176,000	8,607,000	4,987,000	13,594,000	36.7
Utah	1,424,000	164,000	146,000	185,000	1,919,000	452,000	2,371,000	1,745,000	4,116,000	42.4
Vermont	1,178,000	17,000	148,000	16,000	1,359,000	56,000	1,415,000	186,000	1,601,000	11.6
Virginia	3,387,000	2,000	119,000	432,000	3,940,000	1,168,000	5,108,000	3,368,000	8,476,000	39.7
Washington	2,909,000	55,000	327,000	329,000	3,620,000	713,000	4,333,000	2,789,000	7,122,000	39.2
West Virginia	2,171,000	0	46,000	272,000	2,489,000	163,000	2,652,000	65,000	2,717,000	2.4
Wisconsin	4,064,000	1,034,000	871,000	489,000	6,457,000	720,000	7,177,000	11,736,000	18,913,000	62.1
Wyoming	1,262,000	0	0	148,000	1,409,000	0	1,409,000	502,000	1,911,000	26.3
	139,485,000	11,873,000	19,502,000	13,361,000	184,212,000	30,829,000	215,041,000	110,799,000	325,840,000	34.0

<sup>a</sup>Hatch includes Hatch Funds and Regional Funds administered by CSRS.

<sup>b</sup>COMP are Competitive Research Grants administered by the Competitive Research Grants Office of CSRS.

<sup>c</sup>SPGT are Special Grants administered by CSRS.

<sup>d</sup>Other CSRS includes McIntire-Stennis Funds (Forestry), Evans-Allen Funds (1890 Colleges and Tuskegee institutes), and Animal Health Funds, (Veterinary Science) and any Other CSRS administered funds not included in HATCH, COMP, and SPGT.

<sup>e</sup>Total CSRS is the sum of HATCH, COMP, SPGT, and other CSRS.

<sup>f</sup>CGCA are grants, contracts and cooperative agreements administered by USDA agencies other than CSRS.

<sup>g</sup>Total USDA is the sum of total CSRS and CGCA.

<sup>h</sup>Other federal are grants, contracts, and cooperative agreements administered by federal agencies other than USDA.

<sup>i</sup>Total federal is the sum of total USDA and other federal.

<sup>j</sup>Percent of total from other federal is other federal divided by total federal multiplied by 100.

SOURCE: Compiled from Inventory of Agricultural Research, FY86, USDA/CSRS.

Table B-2—Federal Expenditures by State for Agricultural, Forestry, and Veterinary Research and Development, As Reported by CRIS, FY88 (in dollars)

State	HATCH <sup>a</sup>	COMP <sup>b</sup>	SPGT <sup>c</sup>	Other CSRS <sup>d</sup>	Total CSRS <sup>e</sup>	CGCA <sup>f</sup>	Total USDA <sup>g</sup>	Other Federal <sup>h</sup>	Total Federal <sup>i</sup>	percent of total from other Federal <sup>j</sup>
Alabama	3,366,014	183,000	0,381	3,331,309	6,981,704	982,000	7,963,704	897,000	8,860,704	10.1
Alaska	836,050	0	5,000	329,110	1,170,160	0	1,170,160	0	1,170,160	00.0
Arizona	1,637,354	875,000	373,145	314,729	3,200,228	.048,000	4,248,228	1,404,000	5,652,228	24.8
Arkansas	2,902,616	210,000	486,860	1,744,767	5,344,243	678,000	6,022,243	458,000	6,480,243	7.1
California	4,294,758	6,351,327	2,716,305	962,867	14,325,257	1,613,000	15,938,257	23,696,000	39,634,257	59.8
Colorado	2,259,405	605,000	243,611	545,027	3,653,043	1,807,000	5,460,043	15,253,000	20,713,043	73.6
Connecticut	1,543,601	237,000	185,338	211,575	2,177,514	7,000	2,184,514	656,000	2,840,514	23.1
Delaware	1,089,885	0	0	574,783	1,664,668	1,000	1,665,668	114,000	1,779,668	6.4
Dist. of Columbia	476,964	110,709	0	0	587,673	0	587,673	0	587,673	00.0
Florida	2,447,831	945,988	549,477	1,518,453	6,461,749	2,725,000	9,186,749	4,438,000	3,624,749	32.6
Georgia	3,954,450	1,535,775	1,433,202	2,177,963	9,121,390	834,000	9,955,390	1,642,000	11,597,390	14.2
Hawaii	1,099,005	30,000	2,559,929	140,837	3,829,771	486,000	4,315,771	2,239,000	6,554,771	34.2
Idaho	1,770,136	191,800	435,927	461,835	2,859,698	155,000	3,014,698	561,000	3,575,698	15.7
Illinois	4,584,251	2,059,207	2,749,860	406,121	9,799,439	2,074,000	11,873,439	2,093,000	13,966,439	15.0
Indiana	4,122,088	1,241,014	598,333	400,690	6,362,123	429,000	6,791,123	5,928,000	12,719,123	46.6
Iowa	4,850,957	57,550	781,346	451,842	6,655,695	2,387,000	9,042,695	1,161,000	10,603,695	14.7
Kansas	2,842,448	947,000	3,183,009	316,593	7,289,050	342,000	7,631,050	3,337,000	11,268,050	32.3
Kentucky	4,166,166	444,760	513,830	2,106,843	7,231,599	0	7,231,599	0	7,231,599	00.0
Louisiana	2,696,202	305,000	645,357	1,641,717	5,288,276	303,000	5,591,276	374,000	5,965,276	6.3
Maine	1,536,176	74,130	158,916	542,482	2,311,704	252,000	2,563,704	544,000	3,107,704	17.5
Maryland	2,069,022	1,311,222	288,108	1,028,897	4,697,249	13,000	4,710,249	87,000	4,797,249	1.8
Massachusetts	1,866,247	1,861,368	934,133	262,554	4,924,302	134,000	5,058,302	382,000	5,440,302	7.0
Michigan	4,192,640	2,491,946	2,440,946	600,915	9,726,447	2,123,000	11,849,447	5,003,000	16,852,447	29.7
Minnesota	4,215,434	1,275,583	578,464	577,554	6,647,035	1,337,000	7,984,035	2,436,000	10,420,035	23.4
Mississippi	3,473,920	106,243	6,530,817	1,972,200	2,083,180	642,000	12,725,180	995,000	13,720,180	7.3
Missouri	3,909,750	978,900	833,134	2,041,592	7,763,376	523,000	8,286,376	1,948,000	10,234,376	19.0
Montana	1,753,480	100,000	189,962	422,224	2,465,666	739,000	3,204,666	2,286,000	5,490,666	41.6
Nebraska	2,783,752	294,300	1,519,989	301,524	4,899,565	2,412,000	7,311,565	1,442,000	8,753,565	16.5
Nevada	1,020,725	100,000	5,000	77,066	1,202,791	11,000	1,213,791	441,000	1,654,791	26.6

New Hampshire	1,200,439	120,000	23,210	274,872	1,618,521	0	1,618,521	0	1,618,521	00.0
New Jersey	2,293,132	556,300	587,429	221,027	3,657,888	115,000	3,772,888	711,000	4,483,888	15.9
New Mexico	1,362,826	200,000	455,589	273,279	2,291,694	740,000	3,031,694	271,000	3,302,694	8.2
New York	4,608,443	3,093,150	995,083	736,146	9,432,822	1,815,000	11,247,822	16,903,000	28,150,822	60.0
North Carolina	5,505,386	1,863,736	423,597	2,765,458	10,558,177	2,806,000	13,364,177	6,220,000	19,584,177	31.8
North Dakota	2,006,894	100,000	2,976,733	145,970	5,229,597	465,000	5,694,597	561,000	6,255,597	9.0
Ohio	4,887,374	594,200	832,344	443,383	6,757,301	143,000	6,900,301	1,934,000	8,834,301	21.9
Oklahoma	2,591,197	776,261	895,693	1,447,560	5,710,711	204,000	5,914,711	874,000	6,788,711	12.9
Oregon	3,369,988	973,525	1,681,830	698,029	5,723,372	2,292,000	8,015,372	5,642,000	13,657,372	41.3
Pennsylvania	5,264,469	1,177,225	1,079,531	573,481	7,956,706	1,225,000	9,181,706	4,989,000	14,170,706	35.2
Puerto Rico	3,608,987	0	403,643	12,508	4,025,138	0	4,025,138	0	4,025,138	00.0
Rhode Island	1,040,549	262,450	15,000	88,851	1,406,850	0	1,406,850	263,000	1,669,850	15.7
South Carolina	2,893,497	108,602	577,153	1,624,812	5,204,064	155,000	5,359,064	113,000	5,472,064	2.1
South Dakota	2,050,865	97,700	50,811	202,441	2,401,817	146,000	2,547,817	36,000	2,583,817	1.4
Tennessee	4,050,782	1,017,000	236,940	2,039,361	7,344,083	50,000	7,394,083	286,000	7,680,083	3.7
Texas	5,323,273	1,721,000	1,143,633	2,870,002	11,057,908	2,563,000	13,620,908	7,557,000	21,177,908	35.7
Utah	1,488,012	140,000	96,984	223,699	1,948,695	588,000	2,536,695	2,232,000	4,768,695	46.8
Vermont	1,230,703	0	0	292,003	1,522,706	373,000	1,895,706	346,000	2,241,706	15.4
Virginia	3,531,368	1,118,501	1,302,872	1,950,777	7,903,518	1,272,000	9,175,518	4,039,000	13,214,518	30.6
Washington	2,983,371	1,070,263	2,515,298	732,939	7,301,871	1,814,000	9,115,871	4,507,000	13,622,871	33.1
West Virginia	2,258,004	0	83,128	376,053	2,717,185	129,000	2,846,185	133,000	2,979,185	4.5
Wisconsin	720	2,486,231	224,981	613,205	7,534,137	751,000	8,285,137	13,384,000	21,669,137	61.8
Wyoming	1,305,636	98,690	5,000	198,132	1,607,458	0	1,607,458	625,000	2,232,458	28.0
	145,688,242	43,012,656	48,667,859	44,268,057	287,636,814	41,703,000	323,339,814	152,141,000	475,480,814	32.4

<sup>a</sup>HATCH includes Hatch Act Funds administered by CSRS.

<sup>b</sup>COMP are Competitive Research Grants administered by the Competitive Research Grants Office of CSRS.

<sup>c</sup>SPGT are Special Grants administered by CSRS.

<sup>d</sup>Other CSRS includes McIntire-Stennis Funds (Forestry), Evans-Allen Funds (1890 Colleges and Tuskegee Institutes), Animal Health Funds (Veterinary Science), and any other CSRS administered funds not included in HATCH, COMP, and SPGT.

<sup>e</sup>Total CSRS is the sum of HATCH, COMP, SPGT, and OTHER CSRS.

<sup>f</sup>CGCA are grants, contracts and cooperative agreements administered by USDA agencies other than CSRS.

<sup>g</sup>Total USDA is the sum of total CSRS and CGCA.

<sup>h</sup>Other federal are grants, contracts and cooperative agreements administered by federal agencies other than USDA.

<sup>i</sup>Total federal is the sum of total USDA and other federal.

<sup>j</sup>Percent of total from other federal is other federal divided by total federal multiplied by 100.

SOURCE: Compiled from *Inventory of Agricultural Research, FY88, USDA/CSRS*.

**Table B-3—Top 10 State Agricultural Experiment Stations with Biotechnology Funds from Federal Sources Other than the U.S. Department of Agriculture for FY 1986 and FY 1988 (in dollars)**

State	1986	1988
California	3,339,550	3,965,419
Colorado	519,316	1,387,628
Indiana	1,466,903	3,129,294
Michigan	1,580,824	993,944
New York	2,931,892	2,337,641
North Carolina	774,460	1,338,578
Texas	1,534,105	1,466,137
Utah	268,955	1,288,030
Washington	466,789	1,090,447
Wisconsin	<u>3,232,370</u>	<u>3,240,762</u>
Total for 10 SAES	16,115,164	20,237,880
Total SAES <sup>a</sup>	20,954,078	27,563,761
Proportion of 10 SAES To total (Percentage)	77	73

<sup>a</sup>Data was unavailable for the SAES from AL, AK, CN, DE, DC, ID, NV, NM, ND, VT, and WY.

SOURCE: Compiled from *Emerging Biotechnologies in Agriculture: Issues and Policies, Progress Report VIII, Nov. 1989*, NASULGC.