

Statistics on Research Funding

Table B-1.—Role of Research in Total USDA Budget, 1915-54

Fiscal year	(1) Funds for research ^a (thousands)	(2) Total USDA budget (millions)	(3) Research as proportion of USDA budget (percent)
1915	\$ 7,440	\$ 29.9	24.9%
1916	6,640	29.1	22.8
1917	7,240	37.4	19.4
1918	7,740	73.4	10.5
1919	8,340	117.3	7.1
1920	9,140	149.4	6.1
1921	9,240	151.7	6.1
1922	9,640	134.5	7.2
1923	9,940	87.5	11.4
1924	9,840	89.9	10.9
1925	10,740	79.8	13.4
1926	12,600	168.5	7.5
1927	13,380	155.0	8.6
1928	15,060	151.0	10.0
1929	17,640	166.8	10.6
1930	19,835	213.4	9.3
1931	21,040	371.6	5.7
1932	20,426	288.6	7.1
1933	17,437	425.4	4.1
1934	15,500	626.6	2.5
1935	15,828	1,060.7	1.5
1936	19,386	710.5	2.7
1937	22,041	789.4	2.8
1938	24,187	931.7	2.6
1939	29,882	1,529.2	2.0
1940	28,992	1,656.0	1.8
1941	28,274	1,548.0	1.8
1942	28,925	1,610.0	1.8
1943	28,736	1,131.0	2.5
1944	29,030	1,185.0	2.5
1945	29,922	1,169.0	2.6
1946	34,807	1,258.0	2.8
1947	40,426	1,292.0	3.1
1948	47,739	1,241.0	3.8
1949	57,285	1,198.0	4.8
1950	60,043	1,507.0	4.0
1951	58,691	1,311.0	4.5
1952	58,182	1,365.0	4.3
1953	57,948	1,318.0	4.4
1954	59,828	1,504.0	4.0

^aIncludes both Federal research and funds passed On to States.

SOURCES: Col. 1. Table B-2, col 1.
Col. 2. "USDA Appropriations," USDA Office of Budget and Finance, B&FR 67-H-245, January 25,1966.

Table B-2.—Appropriations for Research in USDA Budget, 1915-73

Year	(1) Total research funds in USDA budget (thousands)	(2) Funds allocated to States (thousands)	(3) Funds for USDA Federal research (thousands)	(4) Proportion of funds used for USDA research (percent)
1915.....	\$ 7,440	\$ 1,440	\$ 6,000	80.6%
1916.....	6,640	1,440	5,200	78.3
1917.....	7,240	1,440	5,800	80.1
1918.....	7,740	1,440	6,300	81.4
1919.....	8,340	1,440	6,900	82.7
1920.....	9,140	1,440	7,700	84.2
1921.....	9,240	1,440	7,800	84.4
1922.....	9,640	1,440	8,200	85.1
1923.....	9,940	1,440	8,500	85.5
1924.....	9,840	1,440	8,400	85.4
1925.....	10,740	1,440	9,300	86.6
1926.....	12,600	2,400	10,200	81.0
1927.....	13,380	2,880	10,500	78.5
1928.....	15,060	3,360	11,700	77.7
1929.....	17,640	3,840	13,800	78.2
1930.....	19,835	4,335	15,500	78.1
1931.....	21,040	4,340	16,700	79.4
1932.....	20,426	4,357	16,069	78.7
1933.....	17,437	4,359	13,078	75.0
1934.....	15,500	4,361	11,139	71.9
1935.....	15,828	4,38a	11,440	72.3
1936.....	19,388	4,995	14,393	74.2
1937.....	22,041	5,620	16,421	74.5
1938.....	24,187	6,232	17,955	74.2
1939.....	29,882	6,541	23,341	78.1
1940.....	28,992	6,849	22,143	76.4
1941.....	28,274	6,862	21,412	75.7
1942.....	28,925	6,926	21,999	76.0
1943.....	28,736	6,926	21,810	76.1
1944.....	29,030	7,001	22,029	76.0
1945.....	29,922	7,001	22,921	76.6
1946.....	34,807	7,206	27,601	79.3
1947.....	40,426	7,206	33,220	82.2
1948.....	47,739	9,572	36,167	79.9
1949.....	57,285	11,295	45,990	80.3

SOURCES: Col. 1. Cols. 2 and 3.

Col. 2. 1915-62. Robert George Latimer, "Some Economic Aspects of Agricultural Research and Education in the United States," Purdue University, Department of Agricultural Economics, Ph.D. Dissertation, January 1964, p. 171.

1963-73. *Funds for Research at State Agricultural Experiment Stations, USDA/CSRS*, annual issues.Col. 3. 1915-62. Latimer, pp. 65-66. (The same statistics, unrounded form, are reported by W.L. Peterson and J. C. Fitzharris in "Operation and Productivity of the Federal-State Research System in the United States," in *Resource Allocation and Productivity in National and International Agricultural Research* (T.M. Arndt, D. G. Dalrymple, and V. W. Ruttan, eds.), University of Minnesota Press, 1977, p. 63).

1963-73. Peterson and Fitzharris, pp. 63, 64.

Table B-2.—Appropriations for Research in USDA Budget, 1915-73—Continued

Year	(1) Total research funds in USDA budget (thousands)	(2) Funds allocated to States (thousands)	(3) Funds for USDA Federal research (thousands)	(4) Proportion of funds used for USDA research (percent)
1950	\$60,043	\$ 13,219	\$46,824	78.0%
1951	58,691	13,585	45,106	76.9
1952	8,182	13,230	54,952	77.3
1953	57,948	12,587	45,361	78.3
1954	59,828	13,564	46,264	77.3
1955	72,561	19,118	53,443	73.7
1956	83,943	24,304	59,639	71.0
1957	115,543	28,890	86,653	75.0
1958	113,426	29,702	83,724	73.8
1959	129,877	30,863	99,014	76.2
1960	136,039	30,853	105,186	77.3
1961	160,747	31,825	128,922	80.2
1962	161,480	34,728	126,752	78.5
1963	172,800	36,700	136,100	78.8
1964	190,000	40,200	149,800	78.8
1965	239,400	46,900	192,500	80.4
1966	264,700	52,000	212,700	80.4
1967	274,800	56,300	218,500	79.5
1968	278,000	58,500	219,500	79.0
1969	272,600	59,400	213,200	78.2
1970	300,100	61,400	238,700	79.5
1971	331,200	68,100	263,100	79.4
1972	382,200	88,200	294,000	76.9
1973	407,900	104,000	303,900	74.5
Average. 1915-73				78.4%

SOURCES: *Coil*. Cols. 2 and 3.

Col. 2. 1915-62. Robert George Latimer, "Some Economic Aspects of Agricultural Research and Education in the United States," Purdue University, Department of Agricultural Economics, Ph.D. Dissertation, January 1964, p. 171.

1963-73. *Funds for Research at State Agricultural Experiment Stations*, USDA/CSRS, annual Issues.Col. 3. 1915-62. Latimer, pp. 65-66. (The same statistics, in rounded form, are reported by W. L. Peterson and J. C. Fitzharris in "Operation and Productivity of the Federal State Research System in the United States," in *Resource Allocation and Productivity in National and International Agricultural Research* (T. M. Arndt, D. G. Dalrymple, and V. W. Ruttan, eds.), University of Minnesota Press, 1977, p. 63).

1963-73. Peterson and Fitzharris, pp. 63, 64.

Table B-3.—Research and Development Expenditures by Government Agencies (DOD, HEW, USDA, DOE, NASA, NSF, Other Selected Agencies and Total) at SAES and USDA—1966-78 (in thousands of current and constant dollars)

Year	DOE		NASA		NSF		Other agencies	
	Current	Constant	Current	Constant	Current	Constant	Current	Constant
1966	\$1,212	\$1,271.77	\$5,050	\$5,299.06	\$244	\$256.034	\$ 541	\$567.68
1967	1,257	1,257.00	4,867	4,867.00	262	262.000	694	694.00
1968	1,369	1,296.40	4,429	4,194.13	284	268.939	625	591.86
1969	1,406	1,260.99	3,963	3,554.26	274	245.740	744	667.26
1970	1,346	1,117.01	3,800	3,153.53	289	239.834	1,043	865.56
1971	1,303	1,009.30	3,258	2,523.63	337	261.038	1,357	1,051.12
1972	1,298	942.63	3,157	2,292.67	455	330.428	1,169	848.95
1973	1,363	925.95	3,061	2,079.48	480	326.087	1,288	875.00
1974	1,489	912.94	3,002	1,840.59	556	340.895	1,278	783.57
1975	2,047	1,153.24	3,064	1,726.20	595	335.211	1,486	837.18
1976	2,464	1,308.55	3,447	1,830.59	609	323.420	1,541	818.37
1977	3,536	1,761.83	3,703	1,845.04	697	347.285	1,695	844.54
1978	4,196	1,930.97	3,876	1,783.71	754	346.986	2,005	922.69

Year	DOD		HEW		USDA		Total	
	Current	Constant	Current	Constant	Current	Constant	Current	Constant
1966	\$7,024	\$7,370.41	\$1,014	\$1,064.01	\$153	\$160.546	\$15,247	\$15,999.0
1967	8,049	8,049.00	1,147	1,147.00	165	165.000	16,441	16,441.0
1968	7,709	7,300.19	1,252	1,185.61	159	150.568	15,827	14,987.7
1969	7,696	6,902.24	1,297	1,163.23	163	146.188	15,543	13,939.9
1970	7,360	6,107.88	1,221	1,013.28	177	146.888	15,236	12,644.0
1971	7,509	5,816.42	1,476	1,143.30	197	152.595	15,437	11,957.4
1972	8,318	6,040.67	1,751	1,271.60	224	162.672	16,377	11,893.2
1973	8,404	5,709.24	1,838	1,248.64	236	160.326	16,670	11,324.7
1974	8,420	5,162.48	2,290	1,404.05	240	147.149	17,275	10,591.7
1975	9,012	5,077.18	2,363	1,331.27	265	149.296	18,832	10,609.6
1976	9,655	5,127.46	2,546	1,352.10	303	160.913	20,565	10,921.4
1977	10,963	5,462.38	2,787	1,388.64	344	171.400	23,725	11,821.1
1978	11,825	5,441.79	3,132	1,441.33	381	175.334	26,169	12,042.8

SOURCE: NSF, Science Indicators 1979, "Table 4-2 Research and Development Expenditures by U.S. Government Departments, 1986 -1978."

Table B-4.—Total Research Expenditures at SAES, USDA, and Combined SAES and USDA—1966-79 (in thousands of current and constant dollars)

Year	SAES		USDA		Combined SAES + USDA	
	Current	Constant	Current	Constant	Current	Constant
1966	\$205,215	\$215,336	\$153,084	\$160,634	\$ 358,299	\$375,970
1967	207,675	207,675	165,424	165,424	373,099	373,099
1968	242,687	229,817	159,150	150,710	401,837	380,527
1969	259,292	232,549	163,865	146,964	423,157	379,513
1970	282,101	234,109	176,896	146,802	458,997	380,911
1971	300,224	232,552	197,084	152,660	497,308	385,212
1972	346,942	251,955	224,308	162,896	571,250	414,851
1973	378,658	257,240	236,291	160,524	614,949	417,764
1974	430,609	264,015	240,183	147,261	670,792	411,276
1975	490,054	276,087	265,604	149,636	755,658	425,723
1976	527,120	279,936	302,531	160,664	829,651	440,601
1977	605,455	301,672	343,859	171,330	949,314	473,001
1978	662,533	304,893	380,556	175,129	1,043,089	480,022
1979	708,932	301,288	381,242	162,024	1,090,172	463,312

SOURCE: Compiled from USDA, Inventory of Agricultural Research FY1966-79, vol. 11, Science and Education Administration.

Table B-5.—USDA, SAES, and Combined USDA and SAES Scientist Years, 1966-79

Year	USDA	SAES	Combined
1966	3,660.40	6,146.00	9,806.4
1967	3,817.80	6,179.00	9,996.8
1968	3,515.96	5,752.50	9,268.5
1969	3,511.67	5,955.90	9,467.7
1970	3,544.30	6,031.10	9,575.4
1971	3,541.43	5,841.10	9,382.5
1972	3,682.61	5,914.30	9,597.0
1973	3,610.91	5,953.50	9,564.3
1974	3,489.61	6,034.20	9,523.8
1975	3,436.86	6,133.40	9,570.1
1976	3,439.38	6,281.30	9,720.5
1977	3,540.23	6,556.70	10,096.7
1978	3,595.10	6,514.02	10,114.5
1979	3,451.40	6,520.47	9,971.8

SOURCE. Compiled from USDA, Inventory of Agricultural Research FY1966-79, vol. II, Science and Education Administration.

Table B-6.—Total Research Expenditures by USDA Research Agencies (ARS, ESS, and CR)—1966-79 (in current and constant dollars)

Year	ARS		CR ^a		ESS	
	Current	Constant	Current	Constant	Current	Constant
1966	\$136,761	\$143,506	\$ 0.0	\$ 0.0	\$16,323.0	\$17,128.0
1967	145,716	145,716	1,997.0	1,997.0	17,711.0	17,711.0
1968	142,405	134,853	1,969.9	1,865.4	14,774.9	13,991.3
1969	146,801	131,660	1,999.6	1,793.4	15,064.3	13,510.6
1970	161,113	133,704	1,694.4	1,406.1	14,089.1	11,692.2
1971	176,076	136,387	2,647.2	2,050.5	18,361.0	14,222.3
1972	192,617	139,882	12,500.0	9,077.7	19,190.8	13,936.6
1973	200,322	136,088	15,400.0	10,462.0	20,569.2	13,973.6
1974	206,995	126,913	11,583.0	7,101.8	21,604.9	13,246.4
1975	224,096	126,251	16,471.6	9,279.8	25,036.1	14,104.9
1976	252,514	134,102	21,973.8	11,669.6	28,043.0	14,892.7
1977	292,956	145,967	21,903.0	10,913.3	28,999.8	14,449.3
1978	323,146	148,710	23,707.0	10,909.8	33,703.0	15,509.9
1979	327,168	139,043	16,933.0	7,196.3	37,141.0	15,784.5

^aThese expenditures include only the funds used within USDA for administering research funds in the States and obligations of CR administered special grants. They are not double-counted in any of the SAES expenditures from Federal sources.

SOURCE: Compiled from USDA, Inventory of Agricultural Research FY1966-79, vol. II, Science and Education Administration.

Table B-7.—Total Research Expenditures at SAES by Source of Funding (Federal Formula Funds, Cooperative Grants and Cooperative Agreements (CGCA), Other Federal Funds, State Appropriations, and Private Grants)—1966-79
(in thousands of current and constant dollars)

Year	Federal formula funds		CGCA		Other Federal funds	
	Current	Constant	Current	Constant	Current	Constant
1966	\$ 48,017	\$50,385.1	\$6,008	\$6,304.30	\$24,522	\$25,731.4
1987	48,694	48,694.0	6,260	6,260.00	23,566	23,566.0
1988	52,449	49,667.6	9,594	9,085.23	28,602	27,085.2
1989	53,912	48,351.6	7,784	6,981.17	27,834	24,963.2
1970	56,439	46,837.3	6,837	5,673.86	26,440	21,941.9
1971	62,743	48,600.3	6,320	4,895.43	25,957	20,106.1
1972	70,587	51,261.4	6,850	4,974.58	27,299	19,825.0
1973	77,220	52,459.2	7,476	5,078.80	28,748	19,529.9
1974	82,127	50,353.8	8,631	5,291.85	31,205	19,132.4
1975	90,302	50,874.4	10,773	6,089.30	34,236	19,287.9
1976	102,505	54,437.1	9,882	5,248.01	37,772	20,059.5
1977	116,761	58,176.9	11,758	5,858.50	51,759	25,789.2
1978	132,179	60,827.9	14,783	6,803.04	53,590	24,661.8
1979	142,735	60,660.9	17,827	7,576.29	56,165	23,869.5

Year	State appropriations		Private	
	Current	Constant	Current	Constant
1966	\$117,942	\$123,759	\$8,726	\$9,156.3
1967	120,610	120,610	8,545	8,545.0
1968	142,276	134,731	9,788	9,248.1
1989	157,526	141,279	12,238	10,974.0
1970	178,666	148,271	13,719	11,385.1
1971	190,892	147,864	14,312	11,086.0
1972	226,185	164,259	16,021	11,634.7
1973	247,691	188,268	17,523	11,904.2
1974	288,022	176,592	20,624	12,645.0
1975	331,270	186,631	23,473	13,224.2
1976	349,502	185,609	27,459	14,582.6
1977	393,358	195,993	31,819	15,854.0
1978	428,489	197,187	33,587	15,456.5
1979	457,104	194,264	35,101	14,917.6

SOURCE: Compiled from USDA, Inventory of Agricultural Research FY1966-79, vol. II, Science and Education Administration.

Table B-8.—Private Industry Funds for Applied Research and Development for Agricultural Products—1963-75
(in millions of current and constant dollars)

Year	Food and kindred		Farm machinery		Agricultural chemicals		Total private agricultural research	
	Current	Constant	Current	Constant	Current	Constant	Current	Constant
1963	\$102	\$125.5	\$ 76	\$ 93.5	\$ 45	\$ 55.4	\$223	\$274.3
1984	118	139.0	79	93.1	48	56.5	245	288.6
1965	131	147.0	96	107.7	64	71.8	291	326.6
1966	130	137.9	100	106.0	77	81.7	307	325.6
1967	134	134.0	102	102.0	92	92.0	328	328.0
1968	165	154.3	96	89.8	99	92.6	360	336.0
1969	179	156.7	99	87.8	104	92.2	362	339.3
1970	204	170.1	89	74.2	126	105.1	419	349.5
1971	207	165.2	90	71.8	130	103.8	427	340.8
1972	222	168.9	92	70.0	108	82.2	422	321.2
1973	234	170.8	117	85.4	114	83.2	465	339.4
1974	269	181.8	127	85.8	137	92.6	533	360.1
1975	292	184.8	145	91.8	165	104.4	602	381.0

SOURCE: NSF, "Table B-51 Research and Development in Industry 1975," Surveys of Science Resources series, p. 72, NSF77-324.