

TABLE 7

**Total R&D expenditures at federally funded research and development centers, by FFRDC: FYs 2001–22**

(Dollars in thousands)

FFRDC	2001	2002	2003	2004	2005	2006	2007	2008	2009
All FFRDCs	10,071,307	11,536,424	12,126,880	12,632,207	13,254,522	13,218,497	13,824,987	15,616,390	16,390,111
Aerospace Federally Funded Research and Development Center <sup>b</sup>	17,600	26,306	32,745	32,529	32,500	34,200	36,490	38,940	41,470
Ames Laboratory	22,916	23,416	25,213	27,227	29,293	26,460	25,254	27,306	29,012
Argonne National Laboratory	478,391	506,666	500,828	520,881	482,051	472,961	489,684	533,530	543,169
Arroyo Center	24,317	24,484	27,889	26,101	28,152	24,518	25,195	23,852	27,692
Brookhaven National Laboratory	454,500	454,482	452,728	450,342	483,039	490,686	510,212	480,455	569,240
Center for Advanced Aviation System Development	5,683	6,256	6,633	6,462	6,429	6,601	7,290	126,171	133,869
Center for Communications and Computing	43,100	45,296	45,960	50,238	50,800	51,500	57,400	59,500	66,293
Center for Enterprise Modernization	1,161	2,434	2,834	3,687	4,802	6,342	7,101	166,894	181,958
Center for Naval Analyses	69,102	72,712	75,869	79,087	83,837	87,499	99,993	106,967	109,694
Center for Nuclear Waste Regulatory Analyses	14,977	16,398	17,625	16,847	16,391	16,397	17,007	17,960	16,614
CMS Alliance to Modernize Healthcare	na	na	na	na	na	na	na	na	na
Fermi National Accelerator Laboratory	310,928	313,556	303,340	318,435	323,153	330,980	337,306	340,486	376,791
Frederick National Laboratory for Cancer Research	187,222	260,000	296,000	335,000	334,400	334,500	339,800	509,700	378,200
Green Bank Observatory <sup>c</sup>	na	na	na	na	na	na	na	na	na
Homeland Security Institute	na	na	na	na	NA	20,521	25,370	27,400	na
Homeland Security Operational Analysis Center	na	na	na	na	na	na	na	na	na
Homeland Security Studies and Analysis Institute	na	na	na	na	na	na	na	na	32,173
Homeland Security Systems Engineering and Development Institute	na	na	na	na	na	na	na	na	3,387
Idaho National Laboratory	270,636	259,562	330,154	180,306	232,289	163,074	248,322	236,037	388,062

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Jet Propulsion Laboratory	1,355,463	1,435,039	1,390,560	1,551,171	1,606,409	1,548,019	1,717,203	1,733,597	1,711,528
Judiciary Engineering and Modernization Center	na	na	na	na	na	na	na	na	na
Lawrence Berkeley National Laboratory	408,487	467,461	441,500	482,159	482,672	485,626	503,775	573,917	611,711
Lawrence Livermore National Laboratory	1,090,875	1,227,111	1,286,215	1,425,840	1,456,368	1,431,019	1,353,980	1,301,874	1,321,633
Lincoln Laboratory	380,200	451,200	522,851	594,822	627,201	622,993	618,011	641,386	706,555
Los Alamos National Laboratory	1,333,194 <sup>e</sup>	1,994,031	2,106,145	1,986,235	2,101,211	2,145,200	2,046,260	2,073,538	2,172,179
National Astronomy and Ionosphere Center	10,986	12,295	11,508	12,285	13,831	14,108	13,591	12,586	14,738
National Biodefense Analysis and Countermeasures Center	na	na	na	na	na	na	6,320	12,979	19,934
National Center for Atmospheric Research	119,846	157,173	140,756	154,714	135,893	153,343	144,293	161,130	203,627
National Cybersecurity Center of Excellence	na	na	na	na	na	na	na	na	na
National Defense Research Institute	25,512	25,317	26,908	26,550	25,747	34,203	38,152	40,051	42,265
National Radio Astronomy Observatory	34,208	43,900	42,842	42,215	52,023	40,771	129,000	146,098	151,396
National Renewable Energy Laboratory	207,230	197,438	221,496	226,460	211,323	196,449	190,874	229,399	273,640
National Security Engineering Center	29,458	31,163	32,696	35,932	37,213	37,073	46,368	936,228	939,312
National Solar Observatory	na	na	na	na	na	na	na	na	na
NSF's National Optical-Infrared Astronomy Research Laboratory (NSF's NOIRLab)	37,364	41,051	44,409	43,020	52,775	54,616	53,608	55,922	56,972
Oak Ridge National Laboratory	581,135	620,328	690,538	776,203	897,252	928,090	1,083,509	1,251,336	1,259,259

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Pacific Northwest National Laboratory	562,000	608,500	679,000	692,370	779,522	749,365	851,512	885,984	1,064,230
Princeton Plasma Physics Laboratory	76,021	73,610	66,764	75,255	81,803	78,151	75,720	78,154	81,113
Project Air Force	29,361	32,439	33,555	33,049	35,742	39,107	39,315	41,794	45,162
Sandia National Laboratories	1,416,796	1,583,348	1,742,861	1,833,571	1,946,435	1,968,488	2,031,309	2,076,786	2,043,509
Savannah River National Laboratory	87,164	93,602	94,423	94,326	98,650	102,547	114,895	118,400	130,292
Science and Technology Policy Institute	7,311	8,878	6,710	3,681	5,415	6,800	5,600	6,000	5,100
SLAC National Accelerator Laboratory	145,979	171,343	164,747	206,402	205,690	214,026	231,960	234,316	294,421
Software Engineering Institute	37,052	45,088	45,412	57,920	62,262	75,636	80,566	80,963	89,077
Systems and Analyses Center	92,930	98,236	110,200	126,226	118,600	130,400	141,500	146,500	166,000
Thomas Jefferson National Accelerator Facility	102,202	106,305	106,966	104,659	113,349	96,228	81,242	82,254	88,834

e = estimated by institution. na = not applicable. NA = not available; data were not provided by institution.

FFRDC = federally funded research and development center; NSF = National Science Foundation.

<sup>a</sup> R&D expenditures decreased in FY 2011 due to removal of expenditures for capital projects. In this survey, R&D expenditures do not include capital projects. In previous years, some FFRDCs included capital expenditures in their R&D totals. Previous years include an unknown amount of capital expenditures, estimated to be less than \$500 million per year.

<sup>b</sup> Prior to FY 2014, the Aerospace Corporation reported only internal R&D projects. After discussion with the National Center for Science and Engineering Statistics, the Aerospace Corporation agreed to report all R&D expenditures for FY 2014 and provide revised data to include all R&D expenditures for FYs 2010–13.

<sup>c</sup> Prior to the FY 2021 collection, the National Center for Science and Engineering Statistics discovered that the Green Bank Observatory had split from the National Radio Astronomy Observatory on 1 October 2016; both retained FFRDC status. For FYs 2017–20, R&D expenditures reported for the National Radio Astronomy Observatory included the expenditures for the Green Bank Observatory. The Green Bank Observatory began reporting separately on the FY 2021 survey.

**Source(s):**

National Center for Science and Engineering Statistics, FFRDC Research and Development Survey.