

Table 91. Federal obligations for research, by detailed field of R&D: FYs 2016–25

(Dollars in millions)

Field	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 (preliminary)
All fields	67,105	69,871	74,588	81,118	85,305	85,915	93,832	101,256	99,556	95,241
Computer and information sciences	NA	NA	NA	NA	NA	5,350	4,854	5,136	6,664	5,088
Computer sciences and mathematics	4,223	3,894	4,207	4,330	5,912	NA	NA	NA	NA	NA
Computer sciences	2,815	2,735	2,888	2,897	4,280	NA	NA	NA	NA	NA
Mathematics	1,160	942	1,055	1,157	681	NA	NA	NA	NA	NA
Other computer sciences and mathematics	247	218	264	276	950	NA	NA	NA	NA	NA
Geosciences, atmospheric sciences, and ocean sciences (formerly environmental sciences)	4,450	4,470	4,568	5,075	5,039	5,042	5,566	5,884	5,693	5,854
Atmospheric science and meteorology (formerly atmospheric sciences)	1,597	1,651	796	824	908	888	960	1,096	1,019	NA
Geological and earth sciences (formerly geological sciences)	562	580	227	239	306	602	622	413	369	NA
Ocean sciences and marine sciences (formerly oceanography)	773	774	778	819	946	1,096	1,127	1,120	959	NA
Other geosciences, atmospheric sciences, and ocean sciences (formerly other environmental sciences)	1,518	1,464	2,766	3,192	2,879	2,456	2,857	3,255	3,346	NA
Life sciences	32,045	34,090	36,994	38,304	42,525	38,249	41,610	43,750	38,622	37,374
Agricultural sciences	1,283	1,353	1,325	1,446	1,413	1,073	1,268	1,208	1,255	NA
Biological and biomedical sciences	NA	NA	NA	NA	NA	18,228	21,327	24,791	19,371	NA
Biological sciences (excluding environmental biology)	15,923	16,556	17,829	18,910	20,165	NA	NA	NA	NA	NA
Environmental biology	788	783	922	924	902	NA	NA	NA	NA	NA
Health sciences (formerly medical sciences)	11,359	12,649	13,564	13,775	16,182	15,008	14,707	13,281	13,508	NA
Natural resources and conservation	NA	NA	NA	NA	NA	227	247	360	407	NA
Other life sciences	2,693	2,748	3,354	3,249	3,863	3,712	4,060	4,109	4,081	NA
Mathematics and statistics	NA	NA	NA	NA	NA	715	904	997	865	891
Physical sciences	6,706	6,581	7,881	9,816	8,420	10,048	12,099	12,703	12,759	12,503
Astronomy and astrophysics (formerly astronomy)	1,247	1,292	887	1,583	871	964	1,113	1,340	1,255	NA
Chemistry	999	969	1,121	1,125	1,144	1,141	2,014	1,920	2,622	NA
Materials science	NA	NA	NA	NA	NA	552	533	594	638	NA
Physics	3,732	3,676	3,541	3,446	3,577	3,156	3,677	4,275	3,974	NA
Other physical sciences	728	644	2,332	3,661	2,828	4,235	4,762	4,575	4,270	NA
Psychology	2,021	2,081	2,327	2,754	3,276	3,770	4,588	4,947	5,286	5,237
Biological aspects	20	10	20	18	14	14	29	26	21	NA
Social aspects	56	56	48	53	42	50	48	35	33	NA
Other psychological sciences	1,946	2,014	2,259	2,683	3,220	3,706	4,511	4,886	5,232	NA
Social sciences	1,227	1,027	1,039	1,156	1,137	1,371	1,918	2,679	3,138	3,053
Anthropology	32	32	35	35	19	42	57	39	20	NA
Economics	371	294	282	295	203	228	245	298	298	NA
Political science and government (formerly political science)	15	18	11	14	12	11	8	4	9	NA
Sociology, demography, and population studies (formerly sociology)	197	178	143	224	152	112	103	128	139	NA
Other social sciences ^a	612	505	568	588	751	978	1,505	2,210	2,673	NA
Engineering	12,972	13,207	13,759	15,279	13,222	14,650	15,497	15,670	17,551	16,345
Aeronautical engineering	1,836	1,892	1,118	1,199	1,093	NA	NA	NA	NA	NA

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Field	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 (preliminary)
Aerospace, aeronautical, and astronautical engineering	NA	NA	NA	NA	NA	2,604	2,391	1,828	1,358	NA
Astronautical engineering	651	651	796	830	916	NA	NA	NA	NA	NA
Bioengineering and biomedical engineering	NA	NA	NA	NA	NA	40	148	162	308	NA
Chemical engineering	373	302	692	454	788	733	749	1,021	1,388	NA
Civil engineering	462	606	476	566	476	649	644	682	622	NA
Electrical, electronics, and communications engineering (formerly electrical engineering)	1,063	1,103	1,010	971	881	891	872	1,332	944	NA
Industrial and manufacturing engineering	NA	NA	NA	NA	NA	291	2,075	387	2,013	NA
Mechanical engineering	374	450	498	630	523	289	429	476	507	NA
Metallurgical and materials engineering (formerly metallurgy and materials engineering)	1,975	1,941	1,915	1,843	704	811	546	711	828	NA
Other engineering	6,237	6,262	7,253	8,787	7,841	8,343	7,642	9,070	9,584	NA
Other fields	NA	NA	NA	NA	NA	6,721	6,796	9,491	8,978	8,895
Business management and business administration	NA	NA	NA	NA	NA	120	106	235	141	NA
Communication and communications technologies	NA	NA	NA	NA	NA	12	21	32	58	NA
Education research	NA	NA	NA	NA	NA	987	1,063	1,084	1,095	NA
Humanities, including history	NA	NA	NA	NA	NA	*	*	*	25	NA
Law	NA	NA	NA	NA	NA	7	6	6	9	NA
Social work	NA	NA	NA	NA	NA	0	0	2	2	NA
Visual and performing arts	NA	NA	NA	NA	NA	0	0	0	0	NA
All other fields	NA	NA	NA	NA	NA	5,595	5,600	8,132	7,649	NA
Other sciences nec	3,461	4,521	3,812	4,405	5,773	NA	NA	NA	NA	NA

* = amount greater than \$0 but less than \$500,000. NA = not available; agency did not provide data.

nec = not elsewhere classified.

^a As of volume 71 (FYs 2021–22), other social sciences does not include education research or law; those fields were moved to the category other fields.**Note(s):**

Because of rounding, detail may not add to total. FYs 2020, 2021, and 2022 obligations include additional funding provided by supplemental COVID-19 pandemic-related appropriations (e.g., Coronavirus Aid, Relief, and Economic Security [CARES] Act). As of volume 71 (FYs 2021–22), the fields of R&D (formerly fields of science and engineering) were revised for consistency with other National Center for Science and Engineering Statistics surveys; some fields were added, merged, or split, and some fields were renamed. Therefore, the data are not directly comparable with totals reported in previous years. For additional notes associated with the taxonomy changes to the fields listed in the table, see technical table A-3 at <https://ncses.nsf.gov/surveys/federal-funds-research-development/2024-2025#technical-tables>.

Source(s):

National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development.