

TABLE 29. Total higher education R&D expenditures in engineering, ranked by engineering R&D total, by subfield: FY 2011

(Dollars in thousands)

Rank	Institution	All engineering	Aeronautical/ aeronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
	All institutions	10,045,491	671,715	814,659	926,658	1,211,376	2,208,999	1,555,656	738,134	1,918,294
1	Johns Hopkins U. ^a	854,997	105,406 i	22,879 i	18,955 i	12,703 i	245,330 i	171,794 i	1,246 i	276,684 i
2	GA Institute of Technology	451,494	55,762	31,617	28,053	26,071	167,938	74,832	27,795	39,426
3	MA Institute of Technology	305,042	22,326	35,315	32,138	15,551	49,054	49,716	26,930	74,012
4	PA State U., University Park and Hershey Medical Ctr.	276,101	16,837	2,783	16,613	18,509	80,731	66,372	74,256	0
5	TX A&M U., College Station	263,765	20,060	20,110	27,683	67,352	21,021	39,154	4,386	63,999
6	SUNY, U. Albany, C. Nanoscale Science and Engineering	246,554	11,155 i	18,103 i	26,401 i	47,227 i	46,266 i	33,719 i	18,022 i	45,661 i
7	Purdue U., West Lafayette	216,949	10,991	13,245	14,322	40,563	42,370	42,996	5,828	46,634
8	U. MI, Ann Arbor	205,299	11,601	13,192	10,055	15,446	51,217	36,878	10,157	56,753
9	U. TX, Austin	204,701	10,626	9,849	36,931	33,085	39,402	16,088	22,926	35,794
10	VA Polytechnic Institute and State U.	194,811	8,892	11,589	5,511	53,684	38,452	39,298	12,717	24,668
11	OH State U.	166,439	182	1,327	25,225	13,236	31,939	57,650	24,380	12,500
12	U. CA, Berkeley	164,287	0	415	7,562	38,013	88,793	475	74	28,955
13	U. IL, Urbana-Champaign	147,255	9,586	3,638	9,464	25,027	43,016	26,617	16,364	13,543
14	Stanford U.	121,699	11,090	18,983	12,823	9,402	31,730	27,512	4,160	5,999
15	U. MD, College Park	116,928	18,639	3,450	1,975	14,035	17,544	27,044	11,106	23,135
16	U. WI, Madison	116,207	0	7,061	12,990	13,366	11,618	6,671	6,104	58,397
17	NC State U.	113,678	5,149	9,748	22,043	10,070	17,908	6,690	17,580	24,490
18	U. CA, San Diego	109,397	0	20,748	0	0	67,742	12,122	0	8,785
19	U. WA, Seattle	107,059	9,624	22,818	7,984	14,644	31,429	8,793	6,610	5,157
20	U. MN, Twin Cities	97,401	8,513	17,050	12,642	20,363	15,318	17,962	0	5,553
21	U. CO, Boulder	95,980	41,196	584	18,775	13,140	11,428	10,380	0	477
22	Carnegie Mellon U.	93,453	964	9,549	7,922	5,617	20,932	5,507	6,102	36,860
23	Cornell U.	93,350	0	9,112	6,121	5,116	14,538	11,816	9,995	36,652
24	AZ State U.	93,124	355	21,923	2,523	10,795	40,216	0	7,894	9,418
25	U. FL	92,794	9,751	11,953	4,420	20,607	16,149	5,976	11,377	12,561
26	U. CA, Santa Barbara	89,709	0	14,902	8,203	1,330	30,887	7,897	26,468	22
27	UT State U.	89,698	61,238	1,838	0	16,073	6,032	3,676	1	840
28	U. CA, Davis	86,855	0	22,307	13,191	26,880	6,493	9,198	0	8,786
29	U. Rochester	86,748	0	2,949	971	0	5,303	69,865	0	7,660
30	U. Dayton	85,822	5,639	332	7,613	1,165	15,352	6,354	45,009	4,358
31	Northwestern U.	81,524	0	10,712	12,298	4,286	5,444	8,734	18,296	21,754
32	Princeton U.	80,360	10,564	0	11,002	9,115	17,132	0	31,608	939
33	U. UT	71,940	0	8,646	10,198	17,338	10,231	3,028	6,643	15,856
34	U. SC, Columbia	71,684	0	0	16,450	13,199	16,249	22,824	0	2,962
35	NM State U.	70,707	7,293	0	3,740	1,614	10,072	1,260	1,004	45,724
36	U. CA, Los Angeles	67,967	0	3,889	5,706	4,635	23,765	14,095	6,781	9,096
37	IA State U.	64,571	3,258	0	8,730	15,334	7,707	3,282	4,880	21,380
38	Clemson U.	61,229	0	11,384	2,266	10,571	5,322	7,682	14,641	9,363

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(Dollars in thousands)

Rank	Institution	All engineering	Aeronautical/ aeronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
39	U.S. Air Force Academy	61,081	7,194	0	0	289	1,666	48,406	0	3,526
40	U. TN, Knoxville	60,202	10,354	1,847	4,180	12,494	8,661	0	11,493	11,173
41	Rutgers, State U. NJ, New Brunswick	59,489	2,270	9,511	8,242	20,879	5,637	4,063	3,497	5,390
42	U. CA, Santa Cruz	59,256	0	0	0	0	5,463	0	0	53,793
43	OK State U., Stillwater	58,528	718	0	31,108	3,245	2,017	4,013	0	17,427
44	U. AZ	58,310	1,792	3,992	6,067	2,256	19,230	13,860	5,751	5,362
45	MS State U.	56,487	3,674	496	5,013	5,910	21,919	13,047	310	6,118
46	WA State U.	56,226	0	612	4,222	8,432	7,916	3,322	4,813	26,909
47	U. Southern CA	56,120	1,887	13,834	7,947	3,251	19,193	2,692	1,960	5,356
48	Duke U.	56,074	0	18,424	0	3,026	20,645	5,162	2,343	6,474
49	SUNY, U. Buffalo	55,758	337	6,927	6,133	14,502	4,469	6,256	374	16,760
50	Columbia U. in the City of New York	54,985	2,805	13,827	6,621	5,346	16,927	4,346	248	4,865
51	U. DE	54,544	0	2,906	15,557	10,011	8,978	5,029	10,274	1,789
52	Auburn U., Auburn	53,721	1,579	0	10,823	8,968	7,775	6,575	1,672	16,329
53	Rensselaer Polytechnic Institute	53,140	0	1,243	6,663	8,669	16,545	12,923	6,174	923
54	U. KY	51,977	655	1,755	4,236	9,649	3,814	2,938	3,827	25,103
55	Woods Hole Oceanographic Institution	49,284	0	0	0	0	0	0	0	49,284
56	CA Institute of Technology	48,783	6,647	2,231	6,323	2,135	6,745	4,665	0	20,037
57	U. Notre Dame	48,584	9,460	0	8,927	6,096	19,562	0	3,240	1,299
58	Vanderbilt U.	48,458	0	5,540	4,485	9,834	23,016	5,503	0	80
59	NJ Institute of Technology	47,561	0	4,186	5,908	7,885	3,544	2,051	0	23,987
60	U. MA, Amherst	46,669	0	0	15,724	8,169	16,123	6,186	0	467
61	U. VA, Charlottesville	46,240	0	8,763	2,993	1,872	6,128	13,154	8,916	4,414
62	Drexel U.	45,376	0	9,988	4,221	3,757	5,602	5,822	4,750	11,236
63	U. IA	45,013	0	579	1,678	21,115	3,411	4,098	0	14,132
64	Wichita State U.	44,910	42,242	0	0	0	648	596	0	1,424
65	Harvard U.	42,715	0	4,528	4,616	1,832	5,345	3,997	4,919	17,478
66	MI State U.	42,703	0	638	13,994	4,927	8,123	10,135	0	4,886
67	U. NE, Lincoln	42,328	0	2,904	8,131	11,658	9,015	4,708	921	4,991
68	U. ND	42,191	0	0	3,294	2,123	669	1,014	0	35,091
69	Rice U.	41,850	0	15,165	5,354	5,058	11,556	4,703	0	14
70	WV U.	40,903	0	0	4,607	5,101	9,641	14,374	385	6,795
71	U. PA	40,847	0	10,976	3,596	0	11,736	6,021	7,461	1,057
72	U. TX, Dallas	40,834	2,144 i	2,981 i	4,251 i	7,211 i	8,092 i	5,673 i	3,032 i	7,450 i
73	Boston U.	40,823	1,656	24,076	0	0	8,964	3,277	2,440	410
74	MI Technological U.	40,510	0	2,010	2,927	6,104	8,244	14,907	3,297	3,021
75	FL State U.	40,203	4	461	892	1,676	13,944	19,368	3,475	383
76	Case Western Reserve U.	40,150	0	12,477	7,123	733	7,710	3,424	4,520	4,163
77	U. Cincinnati	39,357	5,850	4,110	7,272	1,056	7,392	7,229	0	6,448

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78	U. CA, Irvine	38,721	0	5,994	2,538	8,706	11,191	10,256	0	36
79	U. ME	37,260	0	0	4,729	695	3,029	1,524	26,991	292
80	U. TX, Arlington	36,360	0	5,015	0	3,586	4,193	1,570	1,529	20,467
81	LA State U., Baton Rouge	35,658	0	0	5,550	9,919	2,043	5,456	5,423	7,267
82	CO State U., Ft. Collins	35,387	0	0	3,362	10,114	14,549	5,909	0	1,453
83	Stevens Institute of Technology	35,317	0	956	1,679	1,866	1,212	2,382	1,612	25,610
84	TX Tech U.	35,288	0	0	7,137	4,414	14,421	4,102	0	5,214
85	Yale U.	34,089	0	4,209	5,381	0	8,361	5,993	0	10,145
86	U. Houston	33,700	1,507	2,878	6,543	3,271	6,469	3,940	5,996	3,096
87	U. Pittsburgh, Pittsburgh	33,013	0	10,425	6,507	3,382	2,436	5,711	21	4,531
88	Old Dominion U.	32,825	0	0	0	4,570	17,150	11,105	0	0
89	U. NM	32,313	51	1,998	3,810	3,890	13,516	1,633	3,695	3,720
90	U. AL, Huntsville	31,955	22,479	137	117	953	1,603	3,370	409	2,887
91	U. South FL, Tampa	31,922	0	7	1,959	17,912	5,348	5,319	0	1,377
92	U. Central FL	30,481	830	12,066	0	3,942	8,110	3,277	2,180	76
93	U. CT	30,332	0	0	5,400	7,047	4,875	5,781	5,655	1,574
94	Northeastern U.	30,204	0	0	1,839	6,354	13,791	7,986	0	234
95	SD School of Mines and Technology	30,019	0	0	2,284	717	290	1,198	7,581	17,949
96	MO U. of Science and Technology	29,389	0	0	0	877	5,754	2,715	5,723	14,320
97	CO School of Mines	29,360	8	449	6,567	3,275	0	1,160	11,262	6,639
98	OR State U.	29,089	0	5,218	2,582	5,358	4,265	3,660	1,360	6,646
99	CUNY, City C.	28,777	0	2,971	2,335	11,409	6,283	5,603	0	176
100	U. Akron	28,344	0	1,567	13,398	3,721	2,906	4,353	0	2,399
101	U. Louisville	27,690	285	5,818	1,456	2,864	5,246	851	162	11,008
102	U. OK	27,403	0	0	8,789	5,385	6,190	2,066	0	4,973
103	Brown U.	26,847	0	5,474	3,438	0	7,367	4,230	3,504	2,834
104	SUNY, U. Binghamton	25,503	0	1,016	2	0	8,190	8,728	0	7,567
105	U. AL, Tuscaloosa	25,479	794	0	12,357	2,891	2,584	3,676	2,759	418
106	KS State U.	24,365	1,121	0	4,355	4,002	1,827	4,302	0	8,758
107	U. AR, Fayetteville	24,357	0	1,285	1,191	3,787	10,628	1,960	0	5,506
108	U. CA, Riverside	23,473	0	1,294	3,405	6,102	5,162	1,909	5,601	0
109	MT State U., Bozeman	23,400	0	4,946	1,431	10,277	1,740	1,129	0	3,877
110	FL International U.	23,090	0	2,060	0	3,716	2,309	1,798	0	13,207
111	U. NH	22,847	0	0	427	5,980	12,643	2,564	850	383
112	U. TX, El Paso	22,787	0	0	0	5,201	4,760	6,163	1,411	5,252
113	Dartmouth C.	22,215	0	7,931	3,760	322	5,984	4,218	0	0
114	IL Institute of Technology	22,198	2,249	1,552	3,076	1,001	13,901	419	0	0
115	Mercer U.	22,012	6,892	0	0	0	1,403	8,490	5,163	64
116	Wayne State U.	21,768	0	6,536	2,263	2,283	4,163	5,628	0	895

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117	SUNY, Stony Brook U.	20,384	0	9,560	0	0	5,778	929	3,174	943
118	Washington U., St. Louis	19,914	0	12,837	3,235	68	1,942	1,441	73	318
119	OH U.	19,596	6,337	0	7,765	2,269	1,220	358	333	1,314
120	U. IL, Chicago	18,839	0	7,233	1,150	2,578	3,833	3,988	0	57
121	U. MO, Columbia	18,836	0	284	228	3,487	7,808	2,589	0	4,440
122	U. MA, Lowell	18,295	0	637	1,492	1,055	5,447	2,958	3,920	2,786
123	Lehigh U.	18,118	0	109	2,881	4,078	3,182	2,738	3,757	1,373
124	Naval Postgraduate School	18,009	6,956	0	0	0	3,712	2,711	44	4,586
125	U. AL, Birmingham	17,556	5,729	4,854	0	711	167	2,966	2,353	776
126	ND State U.	17,550	0	0	0	1,246	269	1,662	0	14,373
127	U. ID	16,864	1,523	0	1,789	3,502	3,228	803	391	5,628
128	Syracuse U.	16,531	0	2,574	620	3,587	4,313	5,343	0	94
129	Tufts U.	16,328	0	8,316	1,519	2,554	2,037	1,902	0	0
130	U. PR, Mayaguez	16,188	0	439	3,879	2,657	4,686	1,254	2,137	1,136
131	U. NV, Reno	16,184	404	115	1,334	7,233	1,105	1,927	2,716	1,350
132	Air Force Institute of Technology	16,167	3,847	0	0	0	10,308	0	1,036	976
133	U. Toledo	15,886	0	1,326	2,362	3,904	1,308	6,936	0	50
134	U. Tulsa	15,645	0	0	12,500	0	308	2,837	0	0
135	NM Institute of Mining and Technology	15,313	0	0	4,782	183	333	517	548	8,950
136	U. KS	15,305	590	2,239	4,242	3,737	3,758	348	15	376
137	Rochester Institute of Technology	14,854	0	19	756	77	4,365	1,420	0	8,217
138	U. WI, Milwaukee	13,692	0	0	0	2,696	2,621	2,497	1,783	4,095
139	Wright State U.	13,015	0	3,892	0	0	2,389	3,897	607	2,230
140	George Washington U.	12,852	1,540	1,532	0	5,374	1,679	701	649	1,377
141	Worcester Polytechnic Institute	12,699	0	2,090	2,799	335	2,357	3,095	1,091	932
142	NC Agricultural and Technical State U.	12,666	0	54	156	1,174	1,036	7,022	0	3,224
143	Clarkson U.	12,433	0	0	2,065	6,219	1,393	2,756	0	0
144	U. AK, Fairbanks	12,070	147	0	1,083	3,008	6,948	441	443	0
145	Brigham Young U., Provo	12,001	0	0	2,502	1,135	3,638	4,345	0	381
146	U. TX, Medical Branch	11,849	0	11,849	0	0	0	0	0	0
147	LA Tech U.	11,780	0	3,913	417	1,349	1,202	884	1,058	2,957
148	U. VT	11,713	4,551	0	0	5,717	0	288	0	1,157
149	Cleveland State U.	11,377	0	5,823	702	917	3,262	673	0	0
150	Polytechnic Institute of NY U.	11,349	0	1,471	2,167	610	5,140	950	0	1,011
151	SD State U.	10,212	0	0	0	419	5,291	1,691	0	2,811
152	U. TX, San Antonio	10,194	0	2,349	0	2,591	1,775	3,479	0	0
153	IN U.-Purdue U., Indianapolis	10,120	0	4,688	0	102	1,573	2,064	0	1,693
154	FL Atlantic U.	9,993	0	0	0	631	373	653	0	8,336
155	San Diego State U.	9,915	335	14	0	809	1,145	1,448	0	6,164

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156	Southern IL U., Carbondale	9,698	0	0	0	660	905	1,372	6,240	521
157	U. MD, Baltimore County	9,631	0	0	1,839	111	5,929	1,752	0	0
158	TN Technological U.	9,601	0	0	673	2,108	1,807	4,323	0	690
159	Embry-Riddle Aeronautical U.	9,567	8,663	0	16	2	1	83	15	787
160	George Mason U.	9,221	0	760	0	696	4,070	0	0	3,695
161	Boise State U.	8,627	84	24	127	210	3,523	397	2,119	2,143
162	SUNY, C. of Environmental Science and Forestry	8,286 i	0 i	0 i	4,992 i	1,073 i	0 i	0 i	0 i	2,221 i
163	U. CA, Merced	8,229	0	1,340	0	3,369	1,658	1,174	591	97
164	U. HI, Manoa	8,028	0	0	0	2,751	1,430	2,194	428	1,225
165	U. GA	7,868	0	1,255	0	0	0	0	0	6,613
166	Portland State U.	7,748	0	0	0	3,832	1,461	1,260	1,083	112
167	Villanova U.	7,521 i	0 i	0 i	84 i	568 i	4,056 i	2,812 i	1 i	0 i
168	U. North TX, Denton	7,510	0	0	0	0	417	387	4,083	2,623
169	Morgan State U.	7,413	0	0	0	2,015	1,081	0	0	4,317
170	Temple U.	7,344	0	1,564	0	2,942	740	2,098	0	0
171	U. RI	6,783	39	0	1,786	690	1,530	1,944	94	700
172	U. WY	6,774	0	0	2,229	1,345	1,392	1,802	0	6
173	Marshall U.	6,479	0	0	0	0	0	0	4,436	2,043
174	U. North FL	6,340	0	0	0	767	130	5,403	0	40
175	Jackson State U.	6,154	0	0	0	614	3,648	0	0	1,892
176	Marquette U.	6,117	0	2,306	0	881	1,021	624	0	1,285
177	U. MI, Dearborn	6,105	0	0	0	0	2,035	2,906	0	1,164
178	U. MD, Baltimore	6,078	0	6,078	0	0	0	0	0	0
179	U. TN, Institute of Agriculture	6,068	0	0	2,516	0	0	0	0	3,552
180	CA State U., Sacramento	6,062	0	0	0	4,945	1,096	21	0	0
181	U. NV, Las Vegas	5,991	337	0	0	704	1,418	3,408	0	124
182	U. Miami	5,942	0	1,250	0	2,472	1,231	649	0	340
183	U. Memphis	5,913	0	1,305	0	2,522	1,773	220	0	93
184	U.S. Naval Academy	5,894	1,466	0	0	0	991	1,953	0	1,484
185	U. NC, Charlotte	5,789	0	0	0	1,460	1,165	2,145	0	1,019
186	U. MA, Dartmouth	5,748	0	197	0	837	1,236	734	620	2,124
187	CA State U., Long Beach	5,607 i	20 i	5 i	0 i	689 i	33 i	669 i	0 i	4,191 i
188	Oakland U.	5,420	0	428	0	0	771	3,282	0	939
189	U. TN, Chattanooga	5,387	0	0	0	0	0	0	0	5,387
190	Southern Methodist U.	5,371	0	0	0	125	3,703	778	0	765
191	U. LA, Lafayette	5,189	0	0	1,267	1,284	930	1,295	367	46
192	Howard U.	5,179	0	0	60	1,468	1,778	427	0	1,446
193	U. MS and U. MS Medical Ctr.	5,173	0	0	347	1,227	538	377	0	2,684
194	Kettering U.	4,877	0	0	0	0	761	3,710	25	381

TABLE 29. Total higher education R&D expenditures in engineering, ranked by engineering R&D total, by subfield: FY 2011

(Dollars in thousands)

Rank	Institution	All engineering	Aeronautical/ aeronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
195	Alfred U.	4,825	0	0	0	0	0	0	4,825	0
196	Emory U.	4,808 i	0 i	4,808 i	0 i	0 i	0 i	0 i	0 i	0 i
197	CA Polytechnic State U., San Luis Obispo	4,692	1,435	17	0	578	198	626	161	1,677
198	Northern IL U.	4,631	0	353	58	43	72	304	0	3,801
199	VA Commonwealth U.	4,623	0	1,007	600	0	1,242	1,328	0	446
200	Tulane U.	4,473	0	972	3,483	18	0	0	0	0
201	U. New Orleans	4,406	26	0	0	368	767	415	0	2,830
202	Western MI U.	4,372	0	0	1,276	287	158	1,639	0	1,012
203	U. WI, Superior	4,302 i	0 i	0 i	0 i	4,302 i	0 i	0 i	0 i	0 i
204	Prairie View A&M U.	4,078	158	0	808	194	2,155	419	0	344
205	U.S. Military Academy	3,937	0	0	0	552	1,565	552	0	1,268
206	Southern IL U., Edwardsville	3,870	0	0	0	575	621	1,406	0	1,268
207	Lamar U.	3,733	0	0	2,757	862	6	0	0	108
208	U. CO, Colorado Springs	3,556	2,856	0	0	11	294	34	0	361
209	Norfolk State U.	3,402	0	0	182	0	656	0	0	2,564
210	CA State U., Los Angeles	3,268	1,268	0	0	1,185	559	256	0	0
211	Milwaukee School of Engineering	3,255	0	90	0	1,439	25	1,701	0	0
212	MT Tech of U. MT	3,157	0	0	66	0	621	0	2,426	44
213	U. Denver	3,119	128	1,076	0	0	870	715	330	0
214	ID State U.	2,954	0	0	0	39	490	162	0	2,263
215	SC State U.	2,703 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	2,703 i
216	U. TX, Pan American	2,641	0	0	0	100	166	784	651	940
217	TX A&M U., Kingsville	2,565	0	0	342	1,225	173	337	0	488
218	FL A&M U.	2,557	0	0	52	493	231	859	0	922
219	Bucknell U.	2,547	0	477	461	567	124	817	52	49
220	Catholic U. America	2,402	0	790	0	360	467	785	0	0
221	U. AR, Little Rock	2,394	1,590	7	0	11	125	20	284	357
222	Loyola Marymount U.	2,391	0	0	0	139	0	2,238	0	14
223	TN State U.	2,367	0	0	0	538	1,116	497	0	216
224	FL Institute of Technology	2,278	1	0	121	429	459	1,268	0	0
225	U. CO, Denver and Anschutz Medical Campus	2,270	0	62	68	1,770	96	217	54	3
226	Lawrence Technological U.	2,269	0	658	0	1,446	0	53	0	112
227	San Jose State U.	2,250	362	0	155	515	766	137	0	315
228	U. MN, Duluth	2,214	0	0	11	1,310	259	393	0	241
229	Rowan U.	2,187	0	0	181	1,212	611	183	0	0
230	AL A&M U.	2,185 i	0 i	0 i	0 i	709 i	1,227 i	25 i	0 i	224 i
231	CA Maritime Academy	2,049 i	449 i	0 i	10 i	14 i	116 i	113 i	0 i	1,347 i
232	U. South AL	2,033	0	0	147	632	130	530	0	594
233	TX State U., San Marcos	1,994	0	35	51	33	105	25	1,393	352

TABLE 29. Total higher education R&D expenditures in engineering, ranked by engineering R&D total, by subfield: FY 2011

(Dollars in thousands)

Rank	Institution	All engineering	Aeronautical/ aeronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
234	U. Hartford	1,915	273	0	0	0	24	1,618	0	0
235	VA State U.	1,738	847	226	0	0	0	0	0	665
236	Miami U.	1,643	0	0	172	0	374	172	0	925
237	Central State U.	1,633	0	0	0	665	0	0	164	804
238	U. OR	1,621	0	0	0	1,621	0	0	0	0
239	Tuskegee U.	1,608	391	0	404	0	720	93	0	0
240	U. TX, Tyler	1,583	10	0	0	1,149	424	0	0	0
241	Eastern MI U.	1,577	0	6	351	0	0	1,110	0	110
242	Bradley U.	1,433	0	0	0	66	5	261	0	1,101
243	Purdue U., Calumet	1,426	0	0	0	24	247	11	0	1,144
244	Pittsburg State U.	1,416	12	3	1,379	0	0	0	22	0
245	St. Louis U.	1,408	904	455	0	10	35	0	0	4
246	Murray State U.	1,407	0	0	0	0	0	0	0	1,407
247	Humboldt State U.	1,374	0	0	0	444	166	0	0	764
248	Northern AZ U.	1,353	0	111	0	228	225	777	0	12
249	Baylor U.	1,320	0	0	0	0	660	660	0	0
250	Santa Clara U.	1,294	540	53	0	84	217	0	0	400
251	PA State U., Harrisburg	1,257	44	274	44	289	278	280	48	0
252	MN State U., Mankato	1,238	0	0	0	0	9	322	0	907
253	MO State U.	1,215	0	70	0	61	270	0	0	814
254	U. AK, Anchorage	1,194	175	0	0	533	379	0	0	107
255	West TX A&M U.	1,050	0	0	304	80	8	0	0	658
256	San Francisco State U.	1,039	0	0	0	322	538	179	0	0
257	PA State U., Erie	986	0	71	382	71	91	159	212	0
258	Western New England C.	984	0	29	0	0	6	949	0	0
259	Benedict C.	967	0	0	0	0	967	0	0	0
260	Lafayette C.	952	0	0	388	196	70	297	0	1
261	U. of the Pacific	924	0	81	0	324	0	12	184	323
262	CA State U., Fullerton	922	361	0	0	330	221	0	0	10
263	SUNY, C. of Agriculture and Technology, Cobleskill	909	0	0	0	0	0	0	0	909
264	U. NE, Omaha	900	898	0	0	2	0	0	0	0
265	IN U.-Purdue U., Ft. Wayne	875	0	0	0	0	3	0	0	872
266	James Madison U.	841	0	0	3	773	54	11	0	0
267	Franklin W. Olin C. of Engineering	781	0	22	0	0	160	348	0	251
268	CA State U., Northridge	772	75	0	0	20	308	239	0	130
269	Harvey Mudd C.	769	0 i	34 i	100 i	64 i	271 i	224 i	10 i	66 i
270	U. HI, West O'ahu	753 i	82 i	0 i	2 i	9 i	47 i	525 i	0 i	88 i
271	U. WI, La Crosse	742 i	94 i	0 i	0 i	0 i	0 i	0 i	0 i	648 i
272	U. Central OK	740	0	701	11	0	0	0	0	28

TABLE 29. Total higher education R&D expenditures in engineering, ranked by engineering R&D total, by subfield: FY 2011

(Dollars in thousands)

Rank	Institution	All engineering	Aeronautical/ aeronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
273	U. MO, Kansas City	736	0	0	0	736	0	0	0	0
274	CA State U., Chico	733	0	0	0	56	268	407	0	2
275	Bowling Green State U.	713	0	0	0	0	713	0	0	0
276	U. SD	691	0	691	0	0	0	0	0	0
277	Southern U. and A&M C., Baton Rouge	678 i	0 i	0 i	0 i	0 i	232 i	420 i	18 i	8 i
278	Gonzaga U.	674	0	0	0	0	633	0	0	41
279	Smith C.	669	79	0	59	0	82	0	2	447
280	Dine C.	658 i	51 i	0 i	1 i	7 i	39 i	486 i	0 i	74 i
281	LeTourneau U.	626	0	407	0	0	41	0	178	0
282	SUNY, Farmingdale State C.	604	0	0	50	0	110	68	0	376
283	U. TN, Health Science Ctr.	579	0	579	0	0	0	0	0	0
284	Hampton U.	534	9	0	384	0	127	0	0	14
285	Fairfield U.	501	0	0	0	0	0	0	0	501
286	Kent State U.	490	75	7	0	0	110	0	141	157
287	U. WA, Bothell	487	0	0	0	0	0	0	0	487
288	GA Southern U.	461	0	0	0	21	2	438	0	0
289	Youngstown State U.	457	0	0	0	63	61	333	0	0
290	MS Valley State U.	456	19	0	0	0	0	0	0	437
291	U. Southern MS	441	17	0	0	424	0	0	0	0
292	Middle TN State U.	439	341	0	0	0	0	0	0	98
293	CA State Polytechnic U., Pomona	436	0	0	0	0	0	436	0	0
294	East Carolina U.	432	0	89	76	178	3	0	0	86
295	Rose-Hulman Institute of Technology	428	0	54	16	81	156	121	0	0
296	Grand Valley State U.	422 i	0 i	63 i	0 i	65 i	155 i	77 i	21 i	41 i
297	U. New Haven	419	0	0	0	0	0	419	0	0
298	Cooper Union for the Advancement of Science and Art	402	0	290	3	0	29	0	0	80
299	East TN State U.	389	0	0	0	0	0	0	0	389
300	U. WI, Stevens Point	389 i	0 i	383 i	0 i	4 i	0 i	0 i	0 i	2 i
301	CA State U., San Bernardino	381	0	0	0	381	0	0	0	0
302	NY Chiropractic C.	374	0	374	0	0	0	0	0	0
303	Union C., Schenectady	366	0	11	0	2	216	137	0	0
304	U.S. Coast Guard Academy	346	0	0	3	0	249	94	0	0
305	Western WA U.	343	0	0	0	0	0	343	0	0
306	CA State U., Fresno	340	0	0	0	0	282	47	0	11
307	TX A&M International U.	334	2	0	0	0	209	123	0	0
308	U. DC	333	0	0	0	69	226	32	0	6
309	Weber State U.	322	277	0	0	0	36	9	0	0
310	MT State U., Havre	319	36	0	283	0	0	0	0	0
311	Azusa Pacific U.	283 i	9 i	33 i	43 i	27 i	51 i	43 i	26 i	51 i

TABLE 29. Total higher education R&D expenditures in engineering, ranked by engineering R&D total, by subfield: FY 2011

(Dollars in thousands)

Rank	Institution	All engineering	Aeronautical/ aeronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
312	Valparaiso U.	282	0	0	0	220	1	61	0	0
313	Lake Superior State U.	269	0	0	0	0	0	0	0	269
314	Allen U.	260 i	1 i	20 i	40 i	15 i	113 i	49 i	6 i	16 i
315	FL Gulf Coast U.	260	0	229	0	31	0	0	0	0
316	National U.	256 i	7 i	24 i	10 i	50 i	23 i	91 i	5 i	46 i
317	Swarthmore C.	256	0	0	0	41	128	87	0	0
318	Norwich U.	255 i	169 i	5 i	2 i	50 i	4 i	15 i	1 i	9 i
319	TX A&M Health Science Ctr.	242	0	229	0	0	0	0	0	13
320	CA State U., Stanislaus	239 i	16 i	17 i	23 i	33 i	53 i	35 i	20 i	42 i
321	U. Bridgeport	238	0	0	0	0	220	18	0	0
322	TX Southern U.	232	0	42	0	0	0	0	0	190
323	McNeese State U.	229	0	0	9	77	12	102	0	29
324	OR Institute of Technology	228	0	0	0	0	173	46	0	9
325	PA State U., Altoona	226	0	0	0	0	213	13	0	0
326	U. MA, Boston	225	0	0	0	0	225	0	0	0
327	Saginaw Valley State U.	220	0	0	0	0	0	194	0	26
328	NY Institute of Technology	209	0	0	0	0	0	209	0	0
329	Albany State U.	205	205	0	0	0	0	0	0	0
330	WV State U.	199	0	199	0	0	0	0	0	0
331	PA State U., Great Valley School of Graduate Professional Studies	194	0	42	13	13	43	70	13	0
332	OH Northern U.	191	0	0	0	0	39	121	31	0
333	Barnes-Jewish C. Goldfarb School of Nursing	190 i	8 i	26 i	22 i	15 i	38 i	29 i	18 i	34 i
334	Gannon U.	189	0	0	0	0	30	65	0	94
335	Messiah C.	188 i	0 i	171 i	1 i	4 i	2 i	6 i	0 i	4 i
336	Edison State C.	185 i	14 i	0 i	0 i	2 i	11 i	137 i	0 i	21 i
337	U. Detroit Mercy	180	0	0	0	57	69	54	0	0
338	AR State U., Jonesboro	178	0	0	0	50	128	0	0	0
339	National Flight Test Institute	177	177	0	0	0	0	0	0	0
340	IN State U.	165	0	0	0	0	140	19	0	6
341	U. Portland	165	0	0	0	152	0	13	0	0
342	East Central U.	161 i	15 i	17 i	7 i	17 i	26 i	26 i	12 i	41 i
343	Lyon C.	161	0	107	54	0	0	0	0	0
344	MN State U., Moorhead	161 i	10 i	12 i	16 i	25 i	34 i	23 i	12 i	29 i
345	St. Mary's U., San Antonio	147	0	106	0	0	0	0	0	41
346	Polytechnic U. PR	143	0	0	0	59	84	0	0	0
347	Calvin C.	142	0	0	120	22	0	0	0	0
348	CA State U., San Marcos	141 i	0 i	141 i	0 i	0 i	0 i	0 i	0 i	0 i
349	Seattle U.	140	0	0	0	35	105	0	0	0

TABLE 29. Total higher education R&D expenditures in engineering, ranked by engineering R&D total, by subfield: FY 2011

(Dollars in thousands)

Rank	Institution	All engineering	Aeronautical/ aeronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
350	Elon U.	131 i	3 i	11 i	5 i	29 i	11 i	43 i	3 i	26 i
351	Southern Polytechnic State U.	129	0	0	0	48	0	1	0	80
352	U. del Turabo	128	0	0	0	0	0	0	0	128
353	Widener U., Chester	125	0	37	0	0	0	24	54	10
354	Morehouse C.	119 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	119 i
355	Fayetteville State U.	114	0	0	0	0	114	0	0	0
356	Ball State U.	110	28	0	0	21	0	0	0	61
357	Harding U.	110	97	0	0	0	13	0	0	0
358	SUNY, Institute of Technology, Utica/Rome	110	0	0	0	0	0	110	0	0
359	Frostburg State U.	108	0	0	0	0	0	0	0	108
360	Hope C.	101	0	0	0	0	5	36	60	0
361	Southern UT U.	96	0	0	0	0	0	0	0	96
362	U. Southern ME	96	19	29	0	20	28	0	0	0
363	Rutgers, State U. NJ, Newark	93	0	38	0	0	0	0	0	55
364	U. MI, Flint	92	0	0	0	0	0	0	0	92
365	VA Military Institute	91	0	0	0	22	10	59	0	0
366	CUNY, New York City C. of Technology	90	0	0	0	7	0	71	0	12
367	U. TX, Brownsville	88	0	0	0	0	0	0	0	88
368	CUNY, C. Staten Island	85	23	0	0	0	0	62	0	0
369	RI School of Design	85	80	0	0	0	0	1	0	4
370	Suffolk U.	85	0	0	68	0	17	0	0	0
371	TX A&M U., Corpus Christi	85	0	0	78	0	2	0	0	5
372	Bates C.	83	0	83	0	0	0	0	0	0
373	Jacksonville State U.	79	0	0	0	0	0	0	79	0
374	Wilkes U.	76	0	5	0	0	0	71	0	0
375	Ft. Lewis C.	74	0	0	74	0	0	0	0	0
376	Capitol C.	73 i	4 i	11 i	6 i	5 i	16 i	11 i	7 i	13 i
377	Hendrix C.	70	70	0	0	0	0	0	0	0
378	U. San Diego	66	0	0	0	0	0	0	0	66
379	U. WI, Platteville	64 i	0 i	0 i	0 i	48 i	16 i	0 i	0 i	0 i
380	Alcorn State U.	60	0	0	0	0	0	0	0	60
381	Heidelberg U.	60 i	2 i	7 i	2 i	9 i	5 i	26 i	1 i	8 i
382	Xavier U. LA	60	0	0	0	0	0	0	0	60
383	Ashland U.	57 i	3 i	9 i	5 i	3 i	12 i	10 i	5 i	10 i
384	U. St. Thomas (MN)	56	0	0	0	0	0	0	0	56
385	Bloomsburg U. PA	55	0	0	0	0	30	0	0	25
386	Gallaudet U.	53	0	0	0	0	0	0	0	53
387	Clark Atlanta U.	49	0	0	0	0	0	0	0	49
388	Taylor U.	49	49	0	0	0	0	0	0	0

TABLE 29. Total higher education R&D expenditures in engineering, ranked by engineering R&D total, by subfield: FY 2011

(Dollars in thousands)

Rank	Institution	All engineering	Aeronautical/ aeronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
389	U. North AL	49 i	5 i	5 i	2 i	5 i	8 i	7 i	4 i	13 i
390	TX Christian U.	48	0	0	0	0	46	2	0	0
391	Western IL U.	46	0	0	0	0	0	0	46	0
392	Western Carolina U.	45	0	0	0	0	0	0	0	45
393	Salish Kootenai C.	43	0	0	0	0	43	0	0	0
394	CO State U., Pueblo	42	0	0	0	14	0	14	0	14
395	St. Cloud State U.	42	0	1	0	0	15	26	0	0
396	CA U. PA	41	0	0	0	0	41	0	0	0
397	Unity C.	40	0	0	0	0	0	40	0	0
398	U. WI, Stout	39 i	0 i	0 i	0 i	0 i	39 i	0 i	0 i	0 i
399	Hofstra U.	38	0	0	2	0	0	0	0	36
400	Butler U.	37 i	1 i	3 i	1 i	9 i	3 i	12 i	1 i	7 i
401	ME Maritime Academy	33 i	3 i	4 i	1 i	4 i	5 i	6 i	1 i	9 i
402	Purdue U., North Central	32	0	0	0	0	0	0	0	32
403	Trinity C., Hartford	32	0	9	0	0	0	0	0	23
404	CA State U., Monterey Bay	31	0	0	0	31	0	0	0	0
405	Luther C.	31	0	0	31	0	0	0	0	0
406	C. NJ	30	0	8	0	18	0	1	0	3
407	Central WA U.	28	0	0	0	0	0	0	0	28
408	Philander Smith C.	28 i	0 i	2 i	4 i	2 i	12 i	5 i	1 i	2 i
409	C. of Menominee Nation	26 i	0 i	2 i	4 i	1 i	11 i	5 i	1 i	2 i
410	Lawrence U.	26	0	0	22	4	0	0	0	0
411	U. MD, Eastern Shore	26	0	0	0	0	0	0	0	26
412	Middlebury C.	24	0	0	24	0	0	0	0	0
413	Sewanee: U. of the South	24	0	0	0	0	0	24	0	0
414	SUNY, C. Potsdam	24	0	0	24	0	0	0	0	0
415	Trinity U.	24	0	0	24	0	0	0	0	0
416	Elizabethtown C.	22	0	0	0	0	22	0	0	0
417	U. Houston, Clear Lake	22	0	0	0	0	22	0	0	0
418	Bryant U.	20	0	0	0	0	20	0	0	0
419	Oglala Lakota C.	20	0	0	0	0	0	0	0	20
420	U. AK, Southeast	19	0	0	0	19	0	0	0	0
421	U. of the Incarnate Word	19	0	0	0	19	0	0	0	0
422	Austin C.	18 i	1 i	1 i	1 i	5 i	1 i	6 i	0 i	3 i
423	KY State U.	17	0	0	0	0	0	0	0	17
424	Sweet Briar C.	17	0	0	0	0	0	0	0	17
425	Tarleton State U.	15	0	0	0	0	0	0	0	15
426	Valley City State U.	15 i	1 i	1 i	0 i	1 i	4 i	3 i	1 i	4 i
427	Christian Brothers U.	14 i	1 i	2 i	0 i	1 i	1 i	8 i	0 i	1 i

TABLE 29. Total higher education R&D expenditures in engineering, ranked by engineering R&D total, by subfield: FY 2011

(Dollars in thousands)

Rank	Institution	All engineering	Aeronautical/ aeronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
428	New School	14	0	0	0	0	7	7	0	0
429	Dillard U.	13 i	13 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i
430	Vassar C.	13	8	5	0	0	0	0	0	0
431	AR Tech U.	12 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	12 i
432	Central MI U.	11	11	0	0	0	0	0	0	0
433	Citadel Military C. SC	11	0	0	0	10	1	0	0	0
434	SUNY, C. of Agriculture and Technology, Morrisville	11	11	0	0	0	0	0	0	0
435	Alderson-Broadus C.	10 i	0 i	1 i	1 i	1 i	1 i	5 i	0 i	1 i
436	Eastern WA U.	10	0	0	0	0	0	10	0	0
437	Morehead State U.	10	0	0	0	0	0	5	0	5
438	Loyola U., MD	9	0	0	0	0	0	0	0	9
439	Pepperdine U.	8 i	0 i	0 i	8 i	0 i	0 i	0 i	0 i	0 i
440	U. Southern IN	8	4	0	0	0	0	0	0	4
441	Whitman C.	8	0	0	0	0	0	0	0	8
442	Carthage C.	7	7	0	0	0	0	0	0	0
443	Rollins C.	7	0	0	7	0	0	0	0	0
444	Central CT State U.	6	2	0	0	4	0	0	0	0
445	Northern MI U.	6	0	0	0	0	0	0	0	6
446	Wilberforce U.	6 i	0 i	6 i	0 i	0 i	0 i	0 i	0 i	0 i
447	Black Hills State U.	5	0	0	0	0	5	0	0	0
448	Linfield C.	5 i	0 i	0 i	0 i	1 i	1 i	2 i	1 i	0 i
449	U. PR, Rio Piedras	5	0	0	0	5	0	0	0	0
450	U. TN, Martin	5	0	5	0	0	0	0	0	0
451	Andrews U.	4	0	0	0	0	4	0	0	0
452	Armstrong Atlantic State U.	4 i	4 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i
453	CUNY, Baruch C.	4	0	0	0	4	0	0	0	0
454	U. NC, Wilmington	4	0	0	0	1	3	0	0	0
455	NE Wesleyan U.	3 i	0 i	0 i	0 i	1 i	0 i	1 i	0 i	1 i
456	Stetson U.	3	0	0	3	0	0	0	0	0
457	U. Houston, Downtown	3	0	0	0	0	0	3	0	0

TABLE 29. Total higher education R&D expenditures in engineering, ranked by engineering R&D total, by subfield: FY 2011

(Dollars in thousands)

Rank	Institution	All engineering	Aeronautical/ aeronautical engineering	Bioengineering/ biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical/ materials engineering	Engineering, nec
458	MS C.	2	0	0	2	0	0	0	0	0
459	Washington and Lee U.	2	0	0	0	0	0	0	0	2
460	Winona State U.	2	0	0	0	2	0	0	0	0

i = imputed.

nec = not elsewhere classified.

^a Johns Hopkins University includes Applied Physics Laboratory, with \$795,028 thousand in total R&D expenditures in engineering in FY 2011.

NOTES: Institutions reporting zero expenditures in ranked total for FY 2011 are not listed in this table. Tied institutions are ranked alphabetically. Institutions ranked are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large multi-campus universities; some are part of state university systems. For a complete listing of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table A-3.

SOURCE: National Science Foundation/National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY 2011.