Table 12. Higher education R&D expenditures at institutions in the standard form survey population, by type of cost, highest degree granted, and institutional control: FYs 2010–25

(Dollars in thousands)

Type of cost, highest degree granted, and institutional control	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
All institutions																
All R&D	61,286,610	65,274,393	65,730,064	66,978,647	67,161,428	68,520,986	71,737,194	75,150,488	79,027,030	83,490,430	86,308,537	89,706,305	97,684,505	108,703,229	117,501,503	124,273,460
Direct costs	46,159,649	49,311,567	49,898,796	51,054,891	51,526,881	52,582,932	55,249,954	57,937,662	60,778,819	64,348,130	66,533,223	69,169,857	75,329,731	84,231,725	91,277,714	97,206,297
Salaries, wages, and fringe benefits	25,929,799	27,860,610	28,339,650	28,776,870	29,091,347	29,873,837	31,434,349	33,232,385	34,676,752	36,568,647	38,730,139	40,342,719	43,112,736	47,111,709	51,531,589	54,886,500
Software	105,970	116,422	103,473	107,688	96,523	117,020	113,541	109,643	121,851	136,526	158,571	172,868	193,051	221,344	248,716	283,492
Noncapitalized software	88,456	98,438	93,267	95,655	84,281	93,215	95,153	98,616	110,786	120,971	144,310	158,384	178,303	199,418	224,981	265,355
Capitalized software	17,514	17,984	10,206	12,033	12,242	23,805	18,388	11,027	11,065	15,555	14,261	14,484	14,748	21,926	23,735	18,137
Capitalized equipment	2,148,421	2,256,025	2,040,490	2,254,383	2,036,405	2,119,775	2,169,348	2,193,707	2,148,430	2,439,584	2,588,735	2,664,230	2,703,754	3,255,103	3,603,533	3,919,178
Passed through to subrecipients	4,956,929	5,436,850	5,531,357	5,689,030	5,702,930	5,633,758	5,696,733	5,915,737	6,332,240	6,757,122	7,100,913	7,627,080	8,605,522	9,457,581	10,457,144	11,484,809
Other direct costs	13,018,530	13,641,660	13,883,826	14,226,920	14,599,676	14,838,542	15,835,983	16,486,190	17,499,546	18,446,251	17,954,865	18,362,960	20,714,668	24,185,988	25,436,732	26,632,318
Indirect costs	15,126,961	15,962,826	15,831,268	15,923,756	15,634,547	15,938,054	16,487,240	17,212,826	18,248,211	19,142,300	19,775,314	20,536,448	22,354,774	24,471,504	26,223,789	27,067,163
Recovered	10,465,893	11,352,339	11,221,758	11,220,280	10,874,009	11,101,370	11,453,216	12,022,767	12,746,345	13,608,627	14,036,674	14,660,131	16,185,906	17,702,886	19,186,046	19,860,216
Unrecovered	4,661,068	4,610,487	4,609,510	4,703,476	4,760,538	4,836,684	5,034,024	5,190,059	5,501,866	5,533,673	5,738,640	5,876,317	6,168,868	6,768,618	7,037,743	7,206,947
Doctorate																
All R&D	60,266,691	64,064,133	64,700,201	66,182,145	66,410,192	67,860,286	70,686,976	74,441,469	78,355,175	82,803,180	85,613,262	89,025,572	96,903,249	107,835,900	116,530,119	123,263,209
Direct costs	45,266,156	48,282,499	49,022,847	50,363,045	50,877,741	52,010,844	54,331,541	57,313,365	60,194,590	63,754,155	65,935,410	68,584,356	74,664,866	83,488,579	90,437,838	96,334,748
Salaries, wages, and fringe benefits	25,494,721	27,357,645	27,906,910	28,436,384	28,757,780	29,582,616	31,084,226	32,913,148	34,363,691	36,256,722	38,416,591	40,017,198	42,767,109	46,729,100	51,108,957	54,439,895
Software	98,119	110,285	95,627	102,523	91,347	111,642	108,649	107,205	119,945	134,736	156,189	169,116	188,829	217,332	243,487	276,283
Noncapitalized software	80,940	92,808	86,115	90,658	79,643	88,077	90,552	96,561	109,023	119,336	142,258	154,996	174,142	195,603	220,371	258,530
Capitalized software	17,179	17,477	9,512	11,865	11,704	23,565	18,097	10,644	10,922	15,400	13,931	14,120	14,687	21,729	23,116	17,753
Capitalized equipment	2,086,956	2,192,296	1,995,345	2,219,549	2,011,004	2,095,590	2,039,169	2,166,520	2,124,588	2,418,126	2,565,540	2,636,140	2,666,135	3,218,779	3,558,554	3,868,572
Passed through to subrecipients	4,901,412	5,371,178	5,469,627	5,647,933	5,663,448	5,609,183	5,659,155	5,884,468	6,302,791	6,728,976	7,073,375	7,598,695	8,570,861	9,416,037	10,414,084	11,435,357
Other direct costs	12,684,948	13,251,095	13,555,338	13,956,656	14,354,162	14,611,813	15,440,342	16,242,024	17,283,575	18,215,595	17,723,715	18,163,207	20,471,932	23,907,331	25,112,756	26,314,641
Indirect costs	15,000,535	15,781,634	15,677,354	15,819,100	15,532,451	15,849,442	16,355,435	17,128,104	18,160,585	19,049,025	19,677,852	20,441,216	22,238,383	24,347,321	26,092,281	26,928,461
Recovered	10,382,463	11,236,113	11,125,166	11,147,825	10,808,998	11,041,336	11,384,433	11,966,726	12,686,418	13,547,803	13,973,983	14,597,378	16,108,394	17,624,620	19,100,661	19,769,850
Unrecovered	4,618,072	4,545,521	4,552,188	4,671,275	4,723,453	4,808,106	4,971,002	5,161,378	5,474,167	5,501,222	5,703,869	5,843,838	6,129,989	6,722,701	6,991,620	7,158,611
Nondoctorate																
All R&D	1,019,919	1,210,260	1,029,863	796,502	751,236	660,700	1,050,218	709,019	671,855	687,250	695,275	680,733	781,256	867,329	971,384	1,010,251
Direct costs	893,493	1,029,068	875,949	691,846	649,140	572,088	918,413	624,297	584,229	593,975	597,813	585,501	664,865	743,146	839,876	871,549
Salaries, wages, and fringe benefits	435,078	502,965	432,740	340,486	333,567	291,221	350,123	319,237	313,061	311,925	313,548	325,521	345,627	382,609	422,632	446,605
Software	7,851	6,137	7,846	5,165	5,176	5,378	4,892	2,438	1,906	1,790	2,382	3,752	4,222	4,012	5,229	7,209
Noncapitalized software	7,516	5,630	7,152	4,997	4,638	5,138	4,601	2,055	1,763	1,635	2,052	3,388	4,161	3,815	4,610	6,825
Capitalized software	335	507	694	168	538	240	291	383	143	155	330	364	61	197	619	384
Capitalized equipment	61,465	63,729	45,145	34,834	25,401	24,185	130,179	27,187	23,842	21,458	23,195	28,090	37,619	36,324	44,979	50,606
Passed through to subrecipients	55,517	65,672	61,730	41,097	39,482	24,575	37,578	31,269	29,449	28,146	27,538	28,385	34,661	41,544	43,060	49,452
Other direct costs	333,582	390,565	328,488	270,264	245,514	226,729	395,641	244,166	215,971	230,656	231,150	199,753	242,736	278,657	323,976	317,677
Indirect costs	126,426	181,192	153,914	104,656	102,096	88,612	131,805	84,722	87,626	93,275	97,462	95,232	116,391	124,183	131,508	138,702
Recovered	83,430	116,226	96,592	72,455	65,011	60,034	68,783	56,041	59,927	60,824	62,691	62,753	77,512	78,266	85,385	90,366

Table 12. Higher education R&D expenditures at institutions in the standard form survey population, by type of cost, highest degree granted, and institutional control: FYs 2010–25

(Dollars in thousands)

Type of cost, highest degree granted, and institutional control	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Unrecovered	42,996	64,966	57,322	32,201	37,085	28,578	63,022	28,681	27,699	32,451	34,771	32,479	38,879	45,917	46,123	48,336
Public																
All R&D	41,266,626	43,915,960	44,162,595	44,814,125	44,640,610	45,382,410	47,074,583	49,257,662	51,890,982	54,655,748	56,639,311	58,656,445	63,797,075	71,005,559	76,882,008	81,827,364
Direct costs	31,705,979	33,922,562	34,339,324	34,970,423	34,982,571	35,611,429	36,936,818	38,696,275	40,643,826	42,882,969	44,475,561	46,005,982	49,982,478	55,859,503	60,836,258	64,949,952
Salaries, wages, and fringe benefits	18,317,189	19,636,095	19,949,722	20,205,730	20,413,042	20,779,313	21,724,959	22,901,546	23,752,695	25,070,725	26,483,281	27,546,299	29,332,622	31,833,409	34,884,514	37,248,942
Software	82,340	96,499	83,509	85,149	74,459	92,877	89,420	81,618	94,259	103,511	121,050	139,285	149,399	165,589	176,763	205,995
Noncapitalized software	69,454	80,693	74,897	76,518	65,040	74,445	74,083	73,831	85,049	92,431	111,956	127,246	139,042	150,254	158,130	192,711
Capitalized software	12,886	15,806	8,612	8,631	9,419	18,432	15,337	7,787	9,210	11,080	9,094	12,039	10,357	15,335	18,633	13,284
Capitalized equipment	1,457,694	1,555,049	1,476,328	1,655,640	1,468,659	1,508,998	1,578,490	1,554,190	1,522,210	1,744,709	1,924,765	1,941,026	1,983,854	2,335,080	2,591,109	2,934,672
Passed through to subrecipients	3,065,688	3,418,705	3,502,384	3,608,137	3,558,959	3,541,642	3,520,318	3,662,377	3,917,036	4,149,921	4,384,656	4,597,945	5,168,602	5,679,613	6,346,510	6,970,150
Other direct costs	8,783,068	9,216,214	9,327,381	9,415,767	9,467,452	9,688,599	10,023,631	10,496,544	11,357,626	11,814,103	11,561,809	11,781,427	13,348,001	15,845,812	16,837,362	17,590,193
Indirect costs	9,560,647	9,993,398	9,823,271	9,843,702	9,658,039	9,770,981	10,137,765	10,561,387	11,247,156	11,772,779	12,163,750	12,650,463	13,814,597	15,146,056	16,045,750	16,877,412
Recovered	6,175,654	6,585,483	6,554,816	6,539,581	6,339,755	6,409,794	6,622,242	6,946,564	7,365,362	7,916,489	8,105,687	8,506,535	9,429,936	10,372,728	11,176,253	11,702,319
Unrecovered	3,384,993	3,407,915	3,268,455	3,304,121	3,318,284	3,361,187	3,515,523	3,614,823	3,881,794	3,856,290	4,058,063	4,143,928	4,384,661	4,773,328	4,869,497	5,175,093
Private																
All R&D	20,019,984	21,358,433	21,567,469	22,164,522	22,520,818	23,138,576	24,662,611	25,892,826	27,136,048	28,834,682	29,669,226	31,049,860	33,887,430	37,697,670	40,619,495	42,446,096
Direct costs	14,453,670	15,389,005	15,559,472	16,084,468	16,544,310	16,971,503	18,313,136	19,241,387	20,134,993	21,465,161	22,057,662	23,163,875	25,347,253	28,372,222	30,441,456	32,256,345
Salaries, wages, and fringe benefits	7,612,610	8,224,515	8,389,928	8,571,140	8,678,305	9,094,524	9,709,390	10,330,839	10,924,057	11,497,922	12,246,858	12,796,420	13,780,114	15,278,300	16,647,075	17,637,558
Software	23,630	19,923	19,964	22,539	22,064	24,143	24,121	28,025	27,592	33,015	37,521	33,583	43,652	55,755	71,953	77,497
Noncapitalized software	19,002	17,745	18,370	19,137	19,241	18,770	21,070	24,785	25,737	28,540	32,354	31,138	39,261	49,164	66,851	72,644
Capitalized software	4,628	2,178	1,594	3,402	2,823	5,373	3,051	3,240	1,855	4,475	5,167	2,445	4,391	6,591	5,102	4,853
Capitalized equipment	690,727	700,976	564,162	598,743	567,746	610,777	590,858	639,517	626,220	694,875	663,970	723,204	719,900	920,023	1,012,424	984,506
Passed through to subrecipients	1,891,241	2,018,145	2,028,973	2,080,893	2,143,971	2,092,116	2,176,415	2,253,360	2,415,204	2,607,201	2,716,257	3,029,135	3,436,920	3,777,968	4,110,634	4,514,659
Other direct costs	4,235,462	4,425,446	4,556,445	4,811,153	5,132,224	5,149,943	5,812,352	5,989,646	6,141,920	6,632,148	6,393,056	6,581,533	7,366,667	8,340,176	8,599,370	9,042,125
Indirect costs	5,566,314	5,969,428	6,007,997	6,080,054	5,976,508	6,167,073	6,349,475	6,651,439	7,001,055	7,369,521	7,611,564	7,885,985	8,540,177	9,325,448	10,178,039	10,189,751
Recovered	4,290,239	4,766,856	4,666,942	4,680,699	4,534,254	4,691,576	4,830,974	5,076,203	5,380,983	5,692,138	5,930,987	6,153,596	6,755,970	7,330,158	8,009,793	8,157,897
Unrecovered	1,276,075	1,202,572	1,341,055	1,399,355	1,442,254	1,475,497	1,518,501	1,575,236	1,620,072	1,677,383	1,680,577	1,732,389	1,784,207	1,995,290	2,168,246	2,031,854

Source(s):
National Center for Science and Engineering Statistics, Higher Education Research and Development Survey.