TABLE 13. R&D expenditures at historically black colleges and universities, by source of funds and science and engineering field: FY 1997–2004

(Dollars in thousands)

Source and field	1997	1998	1999	2000	2001	2002	2003	2004
All R&D expenditures	290,369	293,190	254,785	263,447	315,517	362,932	392,383	416,071
Source of funds								
Federal government	254,338	248,688	216,510	227,616	270,212	308,744	338,016	353,476
State and local government	11,346	12,908	6,877	10,699	11,544	17,770	17,860	21,062
Industry	5,182	5,030	5,388	6,072	7,108	9,970	9,598	16,055
Institutional funds	13,880	10,641	14,644	13,826	19,824	21,658	21,460	19,544
All other sources	5,623	15,923	11,366	5,234	6,829	4,790	5,449	5,934
Field								
Science	240,630	245,026	222,920	234,124	282,263	330,657	360,848	378,452
Computer sciences	15,738	14,299	15,916	14,554	19,941	13,337	12,552	11,192
Environmental sciences	14,214	14,700	11,327	11,218	13,343	11,850	23,635	37,616
Atmospheric sciences	1,129	1,810	1,871	4,031	1,718	3,110	10,495	24,431
Earth sciences	1,753	2,958	2,443	2,850	6,005	5,358	5,449	4,334
Oceanography	185	173	447	939	1,528	2,049	3,846	1,389
Environmental sciences, nec	11,147	9,759	6,566	3,398	4,092	1,333	3,845	7,462
Life sciences	138,353	143,599	124,574	139,257	166,350	203,517	234,504	241,595
Agricultural sciences	58,412	60,086	48,706	51,993	62,815	79,268	96,463	75,465
Biological sciences	54,739	57,852	45,581	48,286	62,596	73,619	77,744	81,535
Medical sciences	21,871	21,009	25,449	30,595	34,975	45,804	45,705	67,381
Life sciences, nec	3,331	4,652	4,838	8,383	5,964	4,826	14,592	17,214
Mathematical sciences	6,358	5,248	5,054	5,667	6,375	7,625	11,445	6,903
Physical sciences	47,801	46,815	48,920	40,506	44,307	46,424	44,864	41,808
Astronomy	7,269	4,384	4,567	4,304	2,399	2,149	2,793	2,174
Chemistry	16,534	21,772	22,985	14,014	14,232	15,721	16,640	17,013
Physics	23,633	20,206	20,800	22,126	26,634	24,894	23,699	21,831
Physical sciences, nec	365	453	568	62	1,042	3,660	1,732	790
Psychology	1,135	1,002	2,275	1,688	4,820	5,626	4,813	4,995
Social sciences	9,666	7,920	8,347	11,020	13,147	11,355	11,749	12,534
Economics	1,426	1,156	1,344	1,431	2,131	2,071	2,135	1,941
Political sciences	987	464	299	728	531	352	405	182
Sociology	2,964	3,033	2,877	4,253	4,122	4,181	3,848	3,610
Social sciences, nec	4,289	3,267	3,827	4,608	6,363	4,751	5,361	6,801
Sciences, nec	7,365	11,443	6,507	10,214	13,980	30,923	17,286	21,809
Engineering	49,739	48,164	31,865	29,323	33,254	32,275	31,535	37,619
Aeronautical/astronautical engineering	2,514	2,673	3,923	3,607	3,583	2,392	3,007	4,250
Bioengineering/biomedical engineering	164	183	56	882	918	144	110	144
Chemical engineering	5,010	4,660	2,637	2,965	3,292	2,824	2,896	2,883
Civil engineering	5,003	3,963	3,840	3,228	3,956	4,993	4,413	3,739
Electrical engineering	8,749	8,191	6,497	6,067	7,603	9,158	8,228	8,363
Mechanical engineering	16,704	17,899	8,186	6,705	7,258	6,833	5,995	8,720
Metallurgical/materials engineering	3,561	2,518	379	167	0	25	0	0
Engineering, nec	8,034	8,077	6,347	5,702	6,644	5,906	6,886	9,520

nec = not elsewhere classified.

NOTE: Because of rounding, detail may not add to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2004.