

TABLE H-28. Occupations of Federal scientists and engineers, by sex: 1998–2002

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Occupation and sex	1998	1999	2000	2001	2002
All occupations	189,713	186,891	187,396	193,448	206,182
Female	38,257	38,571	39,788	42,508	47,216
Male	151,456	148,320	147,608	150,936	158,962
All scientists	103,483	103,301	104,790	110,291	120,824
Female	29,392	29,886	31,016	33,420	37,497
Male	74,091	73,415	73,774	76,870	83,326
Computer and mathematical sciences	28,073	27,963	28,339	31,525	39,223
Female	8,863	8,906	9,182	10,263	12,940
Male	19,210	19,057	19,157	21,261	26,282
Computer science	3,182	3,287	3,369	3,861	4,306
Female	987	1,017	1,018	1,148	1,266
Male	2,195	2,270	2,351	2,712	3,040
Cryptanalysis	9	12	12	11	8
Female	6	9	9	8	5
Male	3	3	3	3	3
Equipment specialties	1,018	914	893	817	826
Female	111	97	103	95	90
Male	907	817	790	722	736
Mathematical statistics	1,140	1,155	1,154	1,144	1,158
Female	366	395	397	403	411
Male	774	760	757	741	747
Mathematics	1,407	1,320	1,250	1,126	1,100
Female	421	395	381	347	347
Male	986	925	869	779	753
Operations research	3,137	3,067	3,010	3,041	3,075
Female	749	746	758	771	773
Male	2,388	2,321	2,252	2,270	2,301
Statistics	2,392	2,154	2,244	2,362	2,436
Female	934	828	890	948	1,006
Male	1,458	1,326	1,354	1,414	1,430
Other	15,788	16,054	16,407	19,163	26,314
Female	5,289	5,419	5,626	6,543	9,042
Male	10,499	10,635	10,781	12,620	17,272
Life sciences	28,600	28,847	29,525	30,699	32,405
Female	7,956	8,196	8,542	9,142	9,851
Male	20,644	20,651	20,983	21,557	22,554
Agricultural extension	9	7	5	4	2
Female	5	3	3	3	1
Male	4	4	2	1	1
Agronomy	271	271	275	274	260
Female	25	25	27	25	22
Male	246	246	248	249	238
Animal science	93	91	92	92	92
Female	16	13	15	17	17
Male	77	78	77	75	75
Botany	270	273	277	294	325
Female	132	137	135	149	167
Male	138	136	142	145	158
Ecology	788	774	796	879	979
Female	227	227	238	278	313
Male	561	547	558	601	666

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Occupation and sex	1998	1999	2000	2001	2002
Entomology	587	552	547	556	565
Female	84	71	79	88	92
Male	503	481	468	468	473
Environmental protection	3,679	3,625	3,644	3,663	3,713
Female	1,479	1,472	1,472	1,515	1,532
Male	2,200	2,153	2,172	2,148	2,181
Fishery biology	1,881	1,932	2,005	2,128	2,220
Female	381	394	428	464	483
Male	1,500	1,538	1,577	1,664	1,737
General biological sciences	9,034	9,495	10,023	10,758	11,664
Female	2,870	3,098	3,281	3,600	3,996
Male	6,164	6,397	6,742	7,158	7,668
Genetics	330	322	334	346	367
Female	72	73	79	83	90
Male	258	249	255	263	277
Horticulture	106	105	100	101	96
Female	34	33	31	33	30
Male	72	72	69	68	66
Microbiology	1,941	2,000	2,064	2,117	2,230
Female	801	825	853	887	942
Male	1,140	1,175	1,211	1,230	1,288
Pharmacology	385	402	383	380	389
Female	112	118	122	123	127
Male	273	284	261	257	262
Physiology	413	410	396	385	359
Female	106	104	97	97	81
Male	307	306	299	288	278
Plant pathology	259	240	243	248	249
Female	53	48	50	57	60
Male	206	192	193	191	189
Plant physiology	258	230	222	222	216
Female	57	48	49	49	47
Male	201	182	173	173	169
Range conservation	925	909	904	901	942
Female	177	181	174	185	206
Male	748	728	730	716	736
Soil conservation	3,731	3,635	3,585	3,611	3,870
Female	605	613	636	666	773
Male	3,126	3,022	2,949	2,945	3,097
Soil science	1,312	1,273	1,270	1,300	1,311
Female	148	142	148	159	171
Male	1,164	1,131	1,122	1,141	1,140
Toxicology	301	309	320	330	341
Female	94	96	105	107	118
Male	207	213	215	223	223
Wildlife biology	1,936	1,897	1,945	2,012	2,124
Female	461	457	502	541	570
Male	1,475	1,440	1,443	1,471	1,554
Zoology	91	95	95	98	91
Female	17	18	18	16	13
Male	74	77	77	82	78
Physical sciences	23,927	23,639	23,442	23,561	23,851
Female	4,608	4,616	4,665	4,800	5,037
Male	19,319	19,023	18,777	18,761	18,814

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Occupation and sex	1998	1999	2000	2001	2002
Astronomy and space science	465	457	448	449	438
Female	41	42	45	51	50
Male	424	415	403	398	388
Chemistry	5,871	5,685	5,571	5,606	5,683
Female	1,659	1,614	1,609	1,636	1,712
Male	4,212	4,071	3,962	3,970	3,971
Geodesy	70	65	66	66	66
Female	14	15	13	14	13
Male	56	50	53	52	53
Geology	1,674	1,666	1,655	1,689	1,700
Female	306	303	302	315	316
Male	1,368	1,363	1,353	1,374	1,384
Geophysics	404	405	411	410	412
Female	38	40	41	42	51
Male	366	365	370	368	361
Health physics	659	648	650	644	644
Female	128	132	132	132	136
Male	531	516	518	512	508
Hydrology	2,382	2,361	2,370	2,384	2,426
Female	402	410	431	453	477
Male	1,980	1,951	1,939	1,931	1,949
Meteorology	2,741	2,791	2,782	2,723	2,727
Female	231	232	238	239	245
Male	2,510	2,559	2,544	2,484	2,482
Oceanography	646	642	621	610	628
Female	119	116	119	130	147
Male	527	526	502	480	481
Physics	2,788	2,659	2,598	2,565	2,580
Female	201	203	196	203	212
Male	2,587	2,456	2,402	2,362	2,368
Other	6,227	6,260	6,270	6,415	6,547
Female	1,469	1,509	1,539	1,585	1,678
Male	4,758	4,751	4,731	4,830	4,869
Social sciences	22,883	22,852	23,484	24,506	25,345
Female	7,965	8,168	8,627	9,215	9,669
Male	14,918	14,684	14,857	15,291	15,676
Agricultural market reporting	131	123	120	120	117
Female	22	21	20	21	22
Male	109	102	100	99	95
Agricultural markets	383	360	354	337	367
Female	117	119	122	112	119
Male	266	241	232	225	248
Anthropology	86	79	77	80	85
Female	37	34	35	32	37
Male	49	45	42	48	48
Archeology	814	794	832	904	911
Female	287	281	302	331	332
Male	527	513	530	573	579
Civil rights	41	39	43	44	40
Female	20	19	26	28	25
Male	21	20	17	16	15
Economics	5,004	4,482	4,426	4,508	4,496
Female	1,326	1,186	1,203	1,266	1,296
Male	3,678	3,296	3,223	3,242	3,200

TABLE H-28. Occupations of Federal scientists and engineers, by sex: 1998–2002

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Occupation and sex	1998	1999	2000	2001	2002
Education research	52	57	59	57	62
Female	26	32	33	30	34
Male	26	25	26	27	28
Foreign affairs	3,190	3,563	3,542	3,873	4,192
Female	1,011	1,137	1,188	1,299	1,437
Male	2,179	2,426	2,354	2,574	2,755
Foreign agricultural affairs	178	168	162	156	153
Female	35	37	38	39	38
Male	143	131	124	117	115
Geography	357	320	347	407	467
Female	110	97	107	138	153
Male	247	223	240	269	314
Intelligence	3,140	3,244	3,359	3,441	3,656
Female	956	1,007	1,021	1,054	1,166
Male	2,184	2,237	2,338	2,387	2,490
International cooperation	20	14	13	13	19
Female	9	8	7	6	10
Male	11	6	6	7	9
International relations	132	139	154	174	192
Female	38	43	42	61	67
Male	38	43	42	61	67
Manpower research and analysis	27	26	24	35	33
Female	14	14	10	19	20
Male	13	12	14	16	13
Psychology	3,370	3,538	3,610	3,683	3,725
Female	1,151	1,321	1,384	1,488	1,514
Male	2,219	2,217	2,226	2,195	2,211
Sociology	39	36	37	36	32
Female	17	15	16	17	15
Male	22	21	21	19	17
Trade	628	599	618	657	657
Female	244	239	246	265	264
Male	384	360	372	392	393
Transportation industry	69	74	74	86	91
Female	18	21	21	27	26
Male	51	53	53	59	65
Unemployment insurance	93	90	82	78	78
Female	33	32	27	29	31
Male	60	58	55	49	47
Other	5,129	5,107	5,551	5,817	5,972
Female	2,494	2,505	2,779	2,953	3,063
Male	2,635	2,602	2,772	2,864	2,909
All engineers	86,230	83,590	82,606	83,157	85,358
Female	8,865	8,685	8,772	9,088	9,719
Male	77,365	74,905	73,834	74,066	75,636
Aerospace	7,578	7,451	7,519	7,734	8,025
Female	794	782	824	917	991
Male	6,784	6,669	6,695	6,817	7,034
Chemical	1,019	1,015	983	980	1,012
Female	198	201	192	201	216
Male	821	814	791	779	796
Civil	11,058	10,650	10,418	10,512	10,668
Female	1,097	1,088	1,072	1,132	1,229
Male	9,961	9,562	9,346	9,380	9,439

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Occupation and sex	1998	1999	2000	2001	2002
Electrical, electronics, and computer	27,449	26,430	25,771	25,953	26,703
Female	2,531	2,421	2,372	2,463	2,635
Male	24,918	24,009	23,399	23,487	24,065
Computer	2,319	2,268	2,330	3,144	3,389
Female	434	425	437	571	601
Male	1,885	1,843	1,893	2,573	2,788
Electrical	3,527	3,431	3,322	3,308	3,476
Female	321	297	284	277	316
Male	3,206	3,134	3,038	3,030	3,159
Electronics	21,603	20,731	20,119	19,501	19,838
Female	1,776	1,699	1,651	1,615	1,718
Male	19,827	19,032	18,468	17,884	18,118
Industrial and related	1,981	1,818	1,695	1,644	1,706
Female	272	258	245	239	259
Male	1,709	1,560	1,450	1,405	1,447
Fire prevention	144	134	139	140	162
Female	16	14	18	16	18
Male	128	120	121	124	144
Safety	506	491	470	474	467
Female	53	55	53	57	56
Male	453	436	417	417	411
Other industrial	1,331	1,193	1,086	1,030	1,077
Female	203	189	174	166	185
Male	1,128	1,004	912	864	892
Mechanical	9,151	8,931	8,696	8,826	9,314
Female	590	577	561	614	661
Male	8,561	8,354	8,135	8,212	8,653
Other	27,994	27,295	27,524	27,508	27,930
Female	3,383	3,358	3,506	3,522	3,728
Male	24,611	23,937	24,018	23,986	24,202
Agricultural	333	335	333	334	352
Female	30	35	36	38	52
Male	303	300	297	296	300
Biomedical	277	257	260	274	278
Female	70	71	66	68	68
Male	207	186	194	206	210
Ceramic	50	47	45	44	44
Female	9	8	7	8	9
Male	41	39	38	36	35
Environmental	5,051	4,819	4,718	4,592	4,545
Female	1,099	1,040	1,038	1,015	1,029
Male	3,952	3,779	3,680	3,577	3,516
Materials and metallurgical	1,070	1,045	1,057	1,057	1,086
Female	161	168	171	160	175
Male	909	877	886	897	911
Metallurgy	122	112	101	95	93
Female	8	4	4	5	5
Male	114	108	97	90	88
Mining	236	227	231	223	222
Female	11	11	11	10	10
Male	225	216	220	213	212
Naval architecture	761	744	737	739	767
Female	50	58	62	64	67
Male	711	686	675	675	700

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Occupation and sex	1998	1999	2000	2001	2002
Nuclear	2,112	2,057	2,076	2,141	2,286
Female	118	123	135	157	203
Male	1,994	1,934	1,941	1,984	2,083
Petroleum	319	317	317	310	306
Female	33	32	31	33	36
Male	286	285	286	277	270
Welding	42	38	40	40	43
Female	1	1	2	2	3
Male	41	37	38	38	40
General	17,621	17,297	17,609	17,659	17,908
Female	1,793	1,807	1,943	1,962	2,071
Male	15,828	15,490	15,666	15,697	15,837

NOTE: Total includes those of unknown sex not shown separately.

SOURCE: Office of Personnel Management, tabulations from Central Personnel Data Files, 1998–2002.