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Division of
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Federal Scientists and Engineers: 2003-05

Detailed Statistical Tables | NSF 09-302 | November 2008

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General Notes

This report presents detailed statistical tables on the characteristics of scientists and engineers employed by the federal government over the period 2003–05. This is the third in a series of reports; previous reports covered the periods 1989–93 and 1998–2002 (available at http://www.nsf.gov/statistics/fedworkforce/).

The tables provide detailed descriptive data of various characteristics of federal scientists and engineers, including the agency of employment, primary work activity, educational attainment, age, salary, and geographic data. The classification of employees as scientists or engineers is based on occupational definitions in the Scientists and Engineers Data System (SESTAT), an occupational classification system of the U.S. science and engineering workforce developed by the Division of Science Resources Statistics, National Science Foundation. For further information on definitions of federal scientists and engineers, refer to appendix A, "Technical Notes." Please note that most, but not all, federal agencies and offices are included in these data; details on agency coverage are provided in appendix A.

Data Tables

TABLE 1. Federal scientists and engineers, by agency: 2003–05

Agency	2003	2004	2005
All agencies	206,620	209,994	209,747
Department of Agriculture	19,975	20,550	20,407
Department of Commerce	11,179	11,203	11,293
Department of Defense	92,201	93,972	93,892
Department of the Air Force	16,672	17,192	17,632
Department of the Army	31,310	31,764	31,689
Department of the Navy	37,385	37,842	37,312
Other defense agencies	6,834	7,174	7,259
Department of Energy	4,629	4,545	4,454
Department of Health and Human Services	11,811	11,723	11,541
Department of Housing and Urban Development	324	307	313
Department of the Interior	14,993	15,085	14,933
Department of Justice	2,583	2,653	2,663
Department of Labor	2,445	2,388	2,386
Department of State	1,507	1,751	1,814
Department of Transportation	6,175	6,051	6,011
Department of the Treasury	885	934	938
Department of Veterans Affairs	7,399	7,695	7,961
Environmental Protection Agency	9,838	9,748	9,761
General Services Administration	825	831	841
National Aeronautics and Space Administration	11,029	11,349	11,133
National Science Foundation	496	507	510
Nuclear Regulatory Commission	1,420	1,483	1,534
U.S. International Development Cooperation Agency	191	185	181
All other agencies	6,715	7,034	7,181

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 2. Federal scientists and engineers, by agency and primary work activity: 2003–05

Agency and primary work activity	2003	2004	2005
All agencies	206,620	209,994	209,747
Clinical practice, counseling, and ancillary medical services	4,894	5,034	5,343
Construction	3,983	4,028	4,061
Data collection, processing, and analysis	13,965	13,975	13,944
Design	10,219	10,098	9,777
Development	19,583	19,715	19,770
Installations, operations, and maintenance	8,471	8,281	8,130
Management	9,713	9,855	9,810
Natural resources operations	16,039	16,397	16,359
Planning	4,591	4,551	4,446
Production	2,427	2,308	2,178
Regulatory enforcement and licensing	6,104	6,269	6,332
Research	19,957	19,752	19,430
Research contract and grant administration	1,134	1,128	1,100
Scientific and technical information	4,212	4,292	4,443
Standards and specifications	1,184	1,256	1,241
Teaching and training	367	409	422
Technical assistance and consulting	4,610	4,727	4,523
Test and evaluation	7,535	7,775	7,713
Other, not elsewhere classified	14,753	15,736	15,981
Activity unknown	52,879	54,408	54,744
Department of Agriculture	19,975	20,550	20,407
Clinical practice, counseling, and ancillary medical services	4	4	6
Construction	110	113	111
Data collection, processing, and analysis	1,285	1,346	1,391
Design	218	210	197
Development	191	213	203
Installations, operations, and maintenance	38	33	30
Management	727	793	728
Natural resources operations	9,611	9,913	9,891
Planning	522	507	482
Production	4	4	2
Regulatory enforcement and licensing	116	176	193
Research	2,943	2,949	2,902
Research contract and grant administration	114	121	128
Scientific and technical information	457	492	514
Standards and specifications	36	38	35
Teaching and training	14	10	10
Technical assistance and consulting	499	482	485
Test and evaluation	233	240	248
Other, not elsewhere classified	355	395	434
Activity unknown	2,498	2,511	2,417
Department of Commerce	11,179	11,203	11,293
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	22	20	17
Data collection, processing, and analysis	4,278	4,341	4,382
Design	56	48	47
Development	437	420	409
Installations, operations, and maintenance	214	212	215
Management	515	534	549
Natural resources operations	209	202	189
Planning	154	149	146
Production	6	7	7

TABLE 2. Federal scientists and engineers, by agency and primary work activity: 2003–05

Agency and primary work activity	2003	2004	2005
Regulatory enforcement and licensing	41	35	34
Research	2,307	2,314	2,289
Research contract and grant administration	17	14	14
Scientific and technical information	213	216	222
Standards and specifications	23	21	22
Teaching and training	19	22	21
Technical assistance and consulting	87	82	86
Test and evaluation	57	56	58
Other, not elsewhere classified	140	152	153
Activity unknown	2,384	2,358	2,433
Department of Defense	92,201	93,972	93,892
Clinical practice, counseling, and ancillary medical services	689	715	864
Construction	2,879	2,948	2,939
Data collection, processing, and analysis	1,888	1,818	1,792
Design	7,846	7,753	7,475
Development	13,210	13,330	13,504
Installations, operations, and maintenance	6,390	6,293	6,195
Management	4,197	4,256	4,247
Natural resources operations	1,089	1,082	1,132
Planning	2,419	2,373	2,384
Production	2,224	2,138	2,010
Regulatory enforcement and licensing	693	699	683
Research	4,245	4,379	4,446
Research contract and grant administration	212	203	186
Scientific and technical information	1,280	1,375	1,434
Standards and specifications	506	597	587
Teaching and training	264	308	329
Technical assistance and consulting	754	726	697
Test and evaluation	4,964	5,176	5,171
Other, not elsewhere classified	6,109	6,673	6,724
Activity unknown	30,343	31,130	31,093
Department of the Air Force	16,672	17,192	17,632
Clinical practice, counseling, and ancillary medical services	67	60	58
Construction	272	279	262
Data collection, processing, and analysis	536	535	565
Design	998	993	992
Development	3,220	3,205	3,249
Installations, operations, and maintenance	2,818	2,913	3,058
Management	883	952	974
Natural resources operations	256	219	203
Planning	523	545	548
Production	273	233	219
Regulatory enforcement and licensing	75	73	72
Research	845	941	991
Research contract and grant administration	56	54	55
Scientific and technical information	384	405	413
Standards and specifications	22	20	17
Teaching and training	46	51	54
Technical assistance and consulting	236	222	210
Test and evaluation	1,072	1,081	1,122
Other, not elsewhere classified	988	1,126	1,165
Activity unknown	3,102	3,285	3,405
Department of the Army	31,310	31,764	31,689
Clinical practice, counseling, and ancillary medical services	388	399	452

TABLE 2. Federal scientists and engineers, by agency and primary work activity: 2003–05

Agency and primary work activity	2003	2004	2005
Construction	1,985	2,044	2,113
Data collection, processing, and analysis	704	668	641
Design	3,806	3,786	3,575
Development	6,499	6,633	6,755
Installations, operations, and maintenance	870	835	817
Management	2,476	2,501	2,503
Natural resources operations	656	703	763
Planning	1,533	1,451	1,404
Production	706	695	662
Regulatory enforcement and licensing	563	570	559
Research	2,294	2,285	2,312
Research contract and grant administration	58	52	44
Scientific and technical information	454	500	530
Standards and specifications	44	50	49
Teaching and training	59	54	52
Technical assistance and consulting	289	254	239
Test and evaluation	1,167	1,247	1,282
Other, not elsewhere classified	2,418	2,593	2,493
Activity unknown	4,341	4,444	4,444
Department of the Navy	37,385	37,842	37,312
Clinical practice, counseling, and ancillary medical services	165	173	241
Construction	553	568	508
Data collection, processing, and analysis	582	554	521
Design	2,872	2,789	2,729
Development	3,011	3,030	3,038
Installations, operations, and maintenance	2,631	2,484	2,262
Management	676	662	637
Natural resources operations	115	100	108
Planning	301	305	357
Production	588	555	519
Regulatory enforcement and licensing	52	51	46
Research	847	869	836
Research contract and grant administration	64	63	55
Scientific and technical information	296	312	334
Standards and specifications	109	106	109
Teaching and training	111	133	135
Technical assistance and consulting	172	191	188
Test and evaluation	2,554	2,659	2,585
Other, not elsewhere classified	2,362	2,498	2,535
Activity unknown	19,324	19,740	19,569
Other defense agencies	6,834	7,174	7,259
Clinical practice, counseling, and ancillary medical services	69	83	113
Construction	69	57	56
Data collection, processing, and analysis	66	61	65
Design	170	185	179
Development	480	462	462
Installations, operations, and maintenance	71	61	58
Management	162	141	133
Natural resources operations	62	60	58
Planning	62	72	75
Production	657	655	610
Regulatory enforcement and licensing	3	5	6
Research	259	284	307
Research contract and grant administration	34	34	32

TABLE 2. Federal scientists and engineers, by agency and primary work activity: 2003–05

Agency and primary work activity	2003	2004	2005
Scientific and technical information	146	158	157
Standards and specifications	331	421	412
Teaching and training	48	70	88
Technical assistance and consulting	57	59	60
Test and evaluation	171	189	182
Other, not elsewhere classified	341	456	531
Activity unknown	3,576	3,661	3,675
Department of Energy	4,629	4,545	4,454
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	100	108	96
Data collection, processing, and analysis	203	197	204
Design	216	200	207
Development	387	398	387
Installations, operations, and maintenance	364	378	364
Management	677	617	617
Natural resources operations	59	61	67
Planning	174	188	157
Production	153	115	114
Regulatory enforcement and licensing	369	342	402
Research	166	172	157
Research contract and grant administration	84	69	44
Scientific and technical information	70	68	67
Standards and specifications	17	18	13
Teaching and training	10	8	5
Technical assistance and consulting	320	321	254
Test and evaluation	19	27	25
Other, not elsewhere classified	637	652	674
Activity unknown	604	606	600
Department of Health and Human Services	11,811	11,723	11,541
Clinical practice, counseling, and ancillary medical services	147	142	140
Construction	64	70	59
Data collection, processing, and analysis	491	481	445
Design	100	89	87
Development	129	122	130
Installations, operations, and maintenance	33	27	31
Management	61	71	81
Natural resources operations	4	2	2
Planning	64	60	56
Production	0	0	0
Regulatory enforcement and licensing	1,131	1,179	1,214
Research	3,694	3,370	3,247
Research contract and grant administration	244	266	268
Scientific and technical information	107	121	145
Standards and specifications	22	26	36
Teaching and training	5	3	3
Technical assistance and consulting	725	762	702
Test and evaluation	905	864	807
Other, not elsewhere classified	2,420	2,642	2,692
Activity unknown	1,465	1,426	1,396
Department of Housing and Urban Development	324	307	313
Clinical practice, counseling, and ancillary medical services	1	1	1
Construction	37	36	44
Data collection, processing, and analysis	15	13	11

TABLE 2. Federal scientists and engineers, by agency and primary work activity: 2003–05

Agency and primary work activity	2003	2004	2005
Design	0	0	0
Development	1	1	0
Installations, operations, and maintenance	3	3	0
Management	1	1	4
Natural resources operations	0	0	0
Planning	13	9	9
Production	0	0	0
Regulatory enforcement and licensing	0	0	0
Research	6	5	12
Research contract and grant administration	0	0	0
Scientific and technical information	4	4	4
Standards and specifications	1	1	1
Teaching and training	0	0	0
Technical assistance and consulting	12	13	2
Test and evaluation	0	0	0
Other, not elsewhere classified	76	74	72
Activity unknown	154	146	153
Department of the Interior	14,993	15,085	14,933
Clinical practice, counseling, and ancillary medical services	14	18	18
Construction	225	216	208
Data collection, processing, and analysis	2,565	2,610	2,602
Design	578	558	557
Development	185	174	150
Installations, operations, and maintenance	223	232	248
Management	574	569	549
Natural resources operations	5,058	5,128	5,070
Planning	571	570	558
Production	2	3	3
Regulatory enforcement and licensing	109	120	124
Research	1,798	1,757	1,731
Research contract and grant administration	22	21	23
Scientific and technical information	421	428	442
Standards and specifications	88	85	84
Teaching and training	17	21	19
Technical assistance and consulting	514	498	461
Test and evaluation	41	41	39
Other, not elsewhere classified	471	496	506
Activity unknown	1,517	1,540	1,541
Department of Justice	2,583	2,653	2,663
Clinical practice, counseling, and ancillary medical services	392	395	388
Construction	4	4	3
Data collection, processing, and analysis	41	44	43
Design	3	3	2
Development	9	9	6
Installations, operations, and maintenance	4	4	4
Management	2	4	4
Natural resources operations	0	0	0
Planning	2	9	2
Production	1	1	1
Regulatory enforcement and licensing	0	0	0
Research	111	100	108
Research contract and grant administration	39	33	32
Scientific and technical information	15	17	18
Standards and specifications	0	0	0

TABLE 2. Federal scientists and engineers, by agency and primary work activity: 2003–05

Agency and primary work activity	2003	2004	2005
Teaching and training	0	2	2
Technical assistance and consulting	3	3	3
Test and evaluation	14	14	13
Other, not elsewhere classified	1,355	1,386	1,399
Activity unknown	588	625	635
Department of Labor	2,445	2,388	2,386
Clinical practice, counseling, and ancillary medical services	1	0	0
Construction	1	1	79
Data collection, processing, and analysis	1,252	1,200	1,216
Design	2	2	3
Development	1	3	4
Installations, operations, and maintenance	3	3	2
Management	113	115	109
Natural resources operations	0	0	0
Planning	74	76	69
Production	1	1	1
Regulatory enforcement and licensing	119	120	61
Research	47	51	60
Research contract and grant administration	0	0	0
Scientific and technical information	4	4	3
Standards and specifications	21	20	19
Teaching and training	1	0	0
Technical assistance and consulting	137	139	138
Test and evaluation	60	58	60
Other, not elsewhere classified	52	58	58
Activity unknown	556	537	504
Department of State	1,507	1,751	1,814
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	0	0	0
Data collection, processing, and analysis	0	0	0
Design	0	0	0
Development	0	0	0
Installations, operations, and maintenance	0	0	0
Management	0	0	0
Natural resources operations	0	0	0
Planning	0	0	0
Production	0	0	0
Regulatory enforcement and licensing	0	0	0
Research	0	0	0
Research contract and grant administration	0	0	0
Scientific and technical information	0	0	0
Standards and specifications	0	0	0
Teaching and training	0	0	0
Technical assistance and consulting	0	0	0
Test and evaluation	0	0	0
Other, not elsewhere classified	179	204	213
Activity unknown	1,328	1,547	1,601
Department of Transportation	6,175	6,051	6,011
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	204	178	187
Data collection, processing, and analysis	88	88	88
Design	566	629	637
Development	298	293	292

TABLE 2. Federal scientists and engineers, by agency and primary work activity: 2003–05

Agency and primary work activity	2003	2004	2005
Installations, operations, and maintenance	547	381	375
Management	308	278	275
Natural resources operations	0	0	0
Planning	136	153	140
Production	0	0	0
Regulatory enforcement and licensing	357	362	351
Research	355	371	365
Research contract and grant administration	8	8	8
Scientific and technical information	48	46	51
Standards and specifications	184	158	155
Teaching and training	23	25	23
Technical assistance and consulting	416	507	527
Test and evaluation	458	451	443
Other, not elsewhere classified	943	911	913
Activity unknown	1,236	1,212	1,181
Department of the Treasury	885	934	938
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	4	5	5
Data collection, processing, and analysis	19	18	21
Design	18	16	12
Development	10	9	7
Installations, operations, and maintenance	2	3	3
Management	10	36	54
Natural resources operations	0	0	0
Planning	58	50	40
Production	2	2	3
Regulatory enforcement and licensing	0	0	0
Research	149	121	103
Research contract and grant administration	1	1	0
Scientific and technical information	9	11	9
Standards and specifications	3	3	3
Teaching and training	0	0	0
Technical assistance and consulting	3	3	2
Test and evaluation	15	12	11
Other, not elsewhere classified	23	28	28
Activity unknown	559	616	637
Department of Veteran Affairs	7,399	7,695	7,961
Clinical practice, counseling, and ancillary medical services	3,635	3,748	3,914
Construction	90	85	82
Data collection, processing, and analysis	4	4	3
Design	15	17	16
Development	1	2	2
Installations, operations, and maintenance	373	414	369
Management	378	376	365
Natural resources operations	2	2	1
Planning	63	66	76
Production	1	1	1
Regulatory enforcement and licensing	2	2	2
Research	449	423	399
Research contract and grant administration	4	5	8
Scientific and technical information	16	14	16
Standards and specifications	5	5	5
Teaching and training	6	5	4
Technical assistance and consulting	5	5	4

TABLE 2. Federal scientists and engineers, by agency and primary work activity: 2003–05

Agency and primary work activity	2003	2004	2005
Test and evaluation	6	6	5
Other, not elsewhere classified	54	57	45
Activity unknown	2,290	2,458	2,644
Environmental Protection Agency	9,838	9,748	9,761
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	7	7	7
Data collection, processing, and analysis	1,337	1,332	1,284
Design	4	3	3
Development	108	85	82
Installations, operations, and maintenance	4	5	5
Management	302	308	326
Natural resources operations	0	0	0
Planning	106	104	100
Production	0	0	0
Regulatory enforcement and licensing	1,535	1,561	1,572
Research	779	780	805
Research contract and grant administration	67	48	47
Scientific and technical information	1,449	1,376	1,389
Standards and specifications	186	175	166
Teaching and training	1	0	0
Technical assistance and consulting	915	951	951
Test and evaluation	37	31	28
Other, not elsewhere classified	342	311	327
Activity unknown	2,659	2,671	2,669
General Services Administration	825	831	841
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	71	70	61
Data collection, processing, and analysis	6	5	4
Design	82	71	70
Development	9	7	8
Installations, operations, and maintenance	9	11	10
Management	14	13	14
Natural resources operations	0	0	0
Planning	3	2	3
Production	0	1	1
Regulatory enforcement and licensing	2	1	2
Research	2	3	3
Research contract and grant administration	4	4	8
Scientific and technical information	3	1	1
Standards and specifications	11	11	12
Teaching and training	1	0	0
Technical assistance and consulting	4	4	3
Test and evaluation	4	1	1
Other, not elsewhere classified	138	151	161
Activity unknown	462	475	479
National Aeronautics and Space Administration	11,029	11,349	11,133
Clinical practice, counseling, and ancillary medical services	4	2	4
Construction	32	30	30
Data collection, processing, and analysis	189	183	171
Design	377	365	327
Development	4,528	4,568	4,502
Installations, operations, and maintenance	212	226	227
Management	1,747	1,796	1,802
Natural resources operations	3	3	3

TABLE 2. Federal scientists and engineers, by agency and primary work activity: 2003–05

Agency and primary work activity	2003	2004	2005
Planning	106	100	97
Production	27	27	28
Regulatory enforcement and licensing	24	25	28
Research	2,198	2,240	2,090
Research contract and grant administration	6	5	4
Scientific and technical information	46	54	58
Standards and specifications	26	42	54
Teaching and training	3	1	1
Technical assistance and consulting	62	73	67
Test and evaluation	606	687	691
Other, not elsewhere classified	598	680	706
Activity unknown	235	242	243
National Science Foundation	496	507	510
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	0	0	0
Data collection, processing, and analysis	34	33	33
Design	0	0	0
Development	0	0	0
Installations, operations, and maintenance	1	3	3
Management	17	19	16
Natural resources operations	0	0	0
Planning	24	23	20
Production	0	0	0
Regulatory enforcement and licensing	7	7	6
Research	2	2	3
Research contract and grant administration	294	310	314
Scientific and technical information	5	3	4
Standards and specifications	0	0	0
Teaching and training	0	0	0
Technical assistance and consulting	34	35	33
Test and evaluation	0	0	0
Other, not elsewhere classified	27	19	19
Activity unknown	51	53	59
Nuclear Regulatory Commission	1,420	1,483	1,534
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	0	0	0
Data collection, processing, and analysis	0	0	0
Design	0	0	0
Development	0	0	0
Installations, operations, and maintenance	0	0	0
Management	0	0	0
Natural resources operations	0	0	0
Planning	0	0	0
Production	0	0	0
Regulatory enforcement and licensing	1,339	1,397	1,429
Research	0	0	0
Research contract and grant administration	0	0	0
Scientific and technical information	0	0	1
Standards and specifications	0	0	0
Teaching and training	0	0	3
Technical assistance and consulting	0	0	0
Test and evaluation	0	0	0
Other, not elsewhere classified	0	0	0
Activity unknown	81	86	101

TABLE 2. Federal scientists and engineers, by agency and primary work activity: 2003–05

Agency and primary work activity	2003	2004	2005
U.S. International Development Cooperation Agency	191	185	181
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	0	0	0
Data collection, processing, and analysis	3	3	3
Design	0	0	0
Development	1	1	1
Installations, operations, and maintenance	0	0	0
Management	2	3	4
Natural resources operations	0	0	0
Planning	0	0	0
Production	0	0	0
Regulatory enforcement and licensing	0	0	0
Research	2	1	1
Research contract and grant administration	0	0	0
Scientific and technical information	1	1	2
Standards and specifications	0	0	0
Teaching and training	0	0	0
Technical assistance and consulting	75	72	56
Test and evaluation	0	0	0
Other, not elsewhere classified	6	7	14
Activity unknown	101	97	100
All other agencies	6,715	7,034	7,181
Clinical practice, counseling, and ancillary medical services	7	9	8
Construction	133	137	133
Data collection, processing, and analysis	267	259	251
Design	138	134	137
Development	78	80	83
Installations, operations, and maintenance	51	53	49
Management	68	66	66
Natural resources operations	4	4	4
Planning	102	112	107
Production	6	8	7
Regulatory enforcement and licensing	260	243	231
Research	704	714	709
Research contract and grant administration	18	20	16
Scientific and technical information	64	61	63
Standards and specifications	55	56	49
Teaching and training	3	4	2
Technical assistance and consulting	45	51	52
Test and evaluation	116	111	113
Other, not elsewhere classified	828	840	843
Activity unknown	3,768	4,072	4,258

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 3. Federal scientists and engineers, by agency and major occupational group: 2003–05

Agency and major occupational group	2003	2004	2005
All agencies	206,620	209,994	209,747
All scientists	120,357	122,857	123,411
Computer and mathematical scientists	40,054	41,403	41,922
Life scientists	34,559	35,317	35,351
Physical scientists	24,355	24,187	23,876
Social scientists	21,389	21,950	22,262
All engineers	86,263	87,137	86,336
Aerospace engineers	8,236	8,427	8,292
Chemical engineers	1,084	1,103	1,090
Civil engineers	10,720	10,523	10,247
Electrical, electronics, and computer engineers	27,070	27,385	27,060
Industrial engineers	1,705	1,648	1,624
Mechanical engineers	9,645	9,838	9,701
Other engineers	27,803	28,213	28,322
Department of Agriculture	19,975	20,550	20,407
All scientists	18,028	18,565	18,479
Computer and mathematical scientists	2,428	2,451	2,383
Life scientists	12,486	12,976	13,034
Physical scientists	1,297	1,300	1,290
Social scientists	1,817	1,838	1,772
All engineers	1,947	1,985	1,928
Aerospace engineers	1	1	1
Chemical engineers	37	42	37
Civil engineers	1,235	1,253	1,216
Electrical, electronics, and computer engineers	75	68	61
Industrial engineers	3	3	3
Mechanical engineers	28	30	28
Other engineers	568	588	582
Department of Commerce	11,179	11,203	11,293
All scientists	10,384	10,443	10,549
Computer and mathematical scientists	3,637	3,706	3,800
Life scientists	1,276	1,303	1,307
Physical scientists	4,233	4,195	4,209
Social scientists	1,238	1,239	1,233
All engineers	795	760	744
Aerospace engineers	10	9	8
Chemical engineers	35	34	34
Civil engineers	47	42	37
Electrical, electronics, and computer engineers	385	372	360
Industrial engineers	16	12	12
Mechanical engineers	105	98	99
Other engineers	197	193	194
Department of Defense	92,201	93,972	93,892
All scientists	33,870	34,930	35,292
Computer and mathematical scientists	18,464	19,130	19,244
Life scientists	3,679	3,836	3,906
Physical scientists	6,333	6,357	6,253
Social scientists	5,394	5,607	5,889
All engineers	58,331	59,042	58,600
Aerospace engineers	3,549	3,538	3,501
Chemical engineers	737	759	747
Civil engineers	6,486	6,308	6,068
Electrical, electronics, and computer engineers	21,725	22,092	21,930
Industrial engineers	1,365	1,325	1,314

TABLE 3. Federal scientists and engineers, by agency and major occupational group: 2003–05

Agency and major occupational group	2003	2004	2005
Mechanical engineers	8,619	8,818	8,695
Other engineers	15,850	16,202	16,345
Department of the Air Force	16,672	17,192	17,632
All scientists	6,039	6,353	6,559
Computer and mathematical scientists	3,323	3,479	3,571
Life scientists	296	317	316
Physical scientists	943	990	1,007
Social scientists	1,477	1,567	1,665
All engineers	10,633	10,839	11,073
Aerospace engineers	1,274	1,241	1,247
Chemical engineers	50	49	49
Civil engineers	320	331	331
Electrical, electronics, and computer engineers	4,748	4,857	4,985
Industrial engineers	247	228	229
Mechanical engineers	819	840	833
Other engineers	3,175	3,293	3,399
Department of the Army	31,310	31,764	31,689
All scientists	12,432	12,688	12,750
Computer and mathematical scientists	5,177	5,358	5,364
Life scientists	2,641	2,764	2,841
Physical scientists	2,377	2,375	2,318
Social scientists	2,237	2,191	2,227
All engineers	18,878	19,076	18,939
Aerospace engineers	549	574	586
Chemical engineers	391	412	409
Civil engineers	5,319	5,159	4,966
Electrical, electronics, and computer engineers	4,762	4,898	4,852
Industrial engineers	398	396	389
Mechanical engineers	2,374	2,473	2,504
Other engineers	5,085	5,164	5,233
Department of the Navy	37,385	37,842	37,312
All scientists	10,995	11,307	11,312
Computer and mathematical scientists	6,433	6,670	6,663
Life scientists	557	567	558
Physical scientists	2,816	2,795	2,726
Social scientists	1,189	1,275	1,365
All engineers	26,390	26,535	26,000
Aerospace engineers	1,615	1,600	1,543
Chemical engineers	282	284	276
Civil engineers	753	724	683
Electrical, electronics, and computer engineers	11,194	11,261	11,019
Industrial engineers	585	560	556
Mechanical engineers	5,278	5,358	5,225
Other engineers	6,683	6,748	6,698
Other defense agencies	6,834	7,174	7,259
All scientists	4,404	4,582	4,671
Computer and mathematical scientists	3,531	3,623	3,646
Life scientists	185	188	191
Physical scientists	197	197	202
Social scientists	491	574	632
All engineers	2,430	2,592	2,588
Aerospace engineers	111	123	125
Chemical engineers	14	14	13
Civil engineers	94	94	88

TABLE 3. Federal scientists and engineers, by agency and major occupational group: 2003–05

Agency and major occupational group	2003	2004	2005
Electrical, electronics, and computer engineers	1,021	1,076	1,074
Industrial engineers	135	141	140
Mechanical engineers	148	147	133
Other engineers	907	997	1,015
Department of Energy	4,629	4,545	4,454
All scientists	1,936	1,884	1,878
Computer and mathematical scientists	515	507	505
Life scientists	241	205	222
Physical scientists	906	872	840
Social scientists	274	300	311
All engineers	2,693	2,661	2,576
Aerospace engineers	0	0	0
Chemical engineers	38	34	29
Civil engineers	208	208	212
Electrical, electronics, and computer engineers	543	547	525
Industrial engineers	53	52	53
Mechanical engineers	74	77	79
Other engineers	1,777	1,743	1,678
Department of Health and Human Services	11,811	11,723	11,541
All scientists	11,069	10,980	10,795
Computer and mathematical scientists	2,416	2,385	2,366
Life scientists	5,030	5,002	4,934
Physical scientists	2,261	2,196	2,118
Social scientists	1,362	1,397	1,377
All engineers	742	743	746
Aerospace engineers	1	1	1
Chemical engineers	23	24	29
Civil engineers	15	16	16
Electrical, electronics, and computer engineers	145	142	135
Industrial engineers	39	36	39
Mechanical engineers	99	99	95
Other engineers	420	425	431
Department of Housing and Urban Development	324	307	313
All scientists	244	227	240
Computer and mathematical scientists	135	129	135
Life scientists	24	24	24
Physical scientists	4	3	3
Social scientists	81	71	78
All engineers	80	80	73
Aerospace engineers	0	0	0
Chemical engineers	0	0	0
Civil engineers	3	4	3
Electrical, electronics, and computer engineers	0	0	0
Industrial engineers	0	0	0
Mechanical engineers	2	2	2
Other engineers	75	74	68
Department of the Interior	14,993	15,085	14,933
All scientists	13,168	13,275	13,125
Computer and mathematical scientists	1,372	1,374	1,369
Life scientists	6,960	7,059	6,978
Physical scientists	3,932	3,921	3,855
Social scientists	904	921	923
All engineers	1,825	1,810	1,808
Aerospace engineers	0	0	0

TABLE 3. Federal scientists and engineers, by agency and major occupational group: 2003–05

Agency and major occupational group	2003	2004	2005
Chemical engineers	6	7	8
Civil engineers	1,015	999	993
Electrical, electronics, and computer engineers	168	168	170
Industrial engineers	11	9	8
Mechanical engineers	95	92	90
Other engineers	530	535	539
Department of Justice	2,583	2,653	2,663
All scientists	2,553	2,625	2,636
Computer and mathematical scientists	610	651	665
Life scientists	5	4	3
Physical scientists	4	4	8
Social scientists	1,934	1,966	1,960
All engineers	30	28	27
Aerospace engineers	0	0	0
Chemical engineers	0	0	0
Civil engineers	4	3	3
Electrical, electronics, and computer engineers	10	9	8
Industrial engineers	1	1	1
Mechanical engineers	7	7	7
Other engineers	8	8	8
Department of Labor	2,445	2,388	2,386
All scientists	2,143	2,088	2,089
Computer and mathematical scientists	608	592	591
Life scientists	1	1	1
Physical scientists	73	70	69
Social scientists	1,461	1,425	1,428
All engineers	302	300	297
Aerospace engineers	0	0	0
Chemical engineers	7	7	8
Civil engineers	30	35	39
Electrical, electronics, and computer engineers	37	34	34
Industrial engineers	98	93	86
Mechanical engineers	17	16	15
Other engineers	113	115	115
Department of State	1,507	1,751	1,814
All scientists	1,400	1,639	1,689
Computer and mathematical scientists	214	249	267
Life scientists	2	10	17
Physical scientists	23	33	25
Social scientists	1,161	1,347	1,380
All engineers	107	112	125
Aerospace engineers	0	0	0
Chemical engineers	0	0	0
Civil engineers	15	19	18
Electrical, electronics, and computer engineers	25	24	27
Industrial engineers	4	5	1
Mechanical engineers	14	13	12
Other engineers	49	51	67
Department of Transportation	6,175	6,051	6,011
All scientists	1,845	1,830	1,818
Computer and mathematical scientists	1,264	1,243	1,231
Life scientists	205	214	212
Physical scientists	60	62	64
Social scientists	316	311	311

TABLE 3. Federal scientists and engineers, by agency and major occupational group: 2003–05

Agency and major occupational group	2003	2004	2005
All engineers	4,330	4,221	4,193
Aerospace engineers	652	642	619
Chemical engineers	1	1	1
Civil engineers	1,416	1,396	1,398
Electrical, electronics, and computer engineers	990	979	979
Industrial engineers	17	19	23
Mechanical engineers	138	131	140
Other engineers	1,116	1,053	1,033
Department of the Treasury	885	934	938
All scientists	849	898	902
Computer and mathematical scientists	558	617	632
Life scientists	2	2	3
Physical scientists	39	36	34
Social scientists	250	243	233
All engineers	36	36	36
Aerospace engineers	0	0	0
Chemical engineers	4	4	4
Civil engineers	2	2	2
Electrical, electronics, and computer engineers	6	7	7
Industrial engineers	2	1	1
Mechanical engineers	10	11	11
Other engineers	12	11	11
Department of Veterans Affairs	7,399	7,695	7,961
All scientists	6,606	6,865	7,118
Computer and mathematical scientists	2,367	2,534	2,725
Life scientists	475	478	466
Physical scientists	313	295	280
Social scientists	3,451	3,558	3,647
All engineers	793	830	843
Aerospace engineers	0	0	0
Chemical engineers	0	0	0
Civil engineers	16	17	23
Electrical, electronics, and computer engineers	38	39	44
Industrial engineers	22	21	18
Mechanical engineers	31	35	30
Other engineers	686	718	728
Environmental Protection Agency	9,838	9,748	9,761
All scientists	7,500	7,499	7,528
Computer and mathematical scientists	543	548	541
Life scientists	3,736	3,772	3,813
Physical scientists	3,015	2,976	2,975
Social scientists	206	203	199
All engineers	2,338	2,249	2,233
Aerospace engineers	0	0	0
Chemical engineers	141	130	132
Civil engineers	13	7	8
Electrical, electronics, and computer engineers	16	15	15
Industrial engineers	1	1	2
Mechanical engineers	107	98	97
Other engineers	2,060	1,998	1,979
General Services Administration	825	831	841
All scientists	471	484	490
Computer and mathematical scientists	458	470	473
Life scientists	7	8	10

TABLE 3. Federal scientists and engineers, by agency and major occupational group: 2003–05

Agency and major occupational group	2003	2004	2005
Physical scientists	6	6	7
Social scientists	0	0	0
All engineers	354	347	351
Aerospace engineers	0	0	0
Chemical engineers	0	0	0
Civil engineers	68	66	69
Electrical, electronics, and computer engineers	58	51	56
Industrial engineers	21	22	19
Mechanical engineers	82	84	79
Other engineers	125	124	128
National Aeronautics and Space Administration	11,029	11,349	11,133
All scientists	1,615	1,622	1,575
Computer and mathematical scientists	477	491	471
Life scientists	66	63	62
Physical scientists	1,013	1,011	993
Social scientists	59	57	49
All engineers	9,414	9,727	9,558
Aerospace engineers	3,991	4,204	4,133
Chemical engineers	35	38	38
Civil engineers	2	2	2
Electrical, electronics, and computer engineers	2,325	2,316	2,214
Industrial engineers	13	12	11
Mechanical engineers	85	89	86
Other engineers	2,963	3,066	3,074
National Science Foundation	496	507	510
All scientists	445	453	457
Computer and mathematical scientists	128	133	138
Life scientists	83	75	81
Physical scientists	163	168	169
Social scientists	71	77	69
All engineers	51	54	53
Aerospace engineers	0	0	0
Chemical engineers	4	5	6
Civil engineers	9	7	6
Electrical, electronics, and computer engineers	6	6	5
Industrial engineers	2	1	1
Mechanical engineers	2	2	2
Other engineers	28	33	33
Nuclear Regulatory Commission	1,420	1,483	1,534
All scientists	467	480	498
Computer and mathematical scientists	85	88	104
Life scientists	3	3	2
Physical scientists	359	368	372
Social scientists	20	21	20
All engineers	953	1,003	1,036
Aerospace engineers	0	0	0
Chemical engineers	7	6	7
Civil engineers	20	23	23
Electrical, electronics, and computer engineers	31	35	31
Industrial engineers	15	13	12
Mechanical engineers	33	37	37
Other engineers	847	889	926
U.S. International Development Cooperation Agency	191	185	181
All scientists	188	183	178

TABLE 3. Federal scientists and engineers, by agency and major occupational group: 2003–05

Agency and major occupational group	2003	2004	2005
Computer and mathematical scientists	36	39	40
Life scientists	44	43	39
Physical scientists	3	3	3
Social scientists	105	98	96
All engineers	3	2	3
Aerospace engineers	0	0	0
Chemical engineers	0	0	0
Civil engineers	0	0	0
Electrical, electronics, and computer engineers	0	0	0
Industrial engineers	0	0	0
Mechanical engineers	0	0	0
Other engineers	3	2	3
All other agencies	6,715	7,034	7,181
All scientists	5,576	5,887	6,075
Computer and mathematical scientists	3,739	4,066	4,242
Life scientists	234	239	237
Physical scientists	318	311	309
Social scientists	1,285	1,271	1,287
All engineers	1,139	1,147	1,106
Aerospace engineers	32	32	29
Chemical engineers	9	12	10
Civil engineers	116	116	111
Electrical, electronics, and computer engineers	487	481	459
Industrial engineers	22	22	20
Mechanical engineers	97	99	97
Other engineers	376	385	380

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 4. Federal scientists and engineers, by major occupational group and OPM series and by sex: 2003–05

Major occupational group and OPM series[a]	2003	2004	2005
All science and engineering occupations	206,620	209,994	209,747
Female	49,410	51,381	52,230
Male	157,199	158,604	157,513
Not reported	11	9	4
All scientists	120,357	122,857	123,411
Female	38,552	40,032	40,716
Male	81,797	82,818	82,693
Not reported	8	7	2
Computer and mathematical scientists	40,054	41,403	41,922
Female	13,449	13,855	13,944
Male	26,603	27,545	27,976
Not reported	2	3	2
Computer scientists	4,581	4,769	4,826
Female	1,389	1,420	1,403
Male	3,191	3,348	3,422
Not reported	1	1	1
Computer specialists	26,696	27,668	28,163
Female	9,245	9,517	9,609
Male	17,450	18,149	18,553
Not reported	1	2	1
Cryptography analysts	0	0	0
Female	0	0	0
Male	0	0	0
Not reported	0	0	0
Equipment specialties	832	874	851
Female	85	87	83
Male	747	787	768
Not reported	0	0	0
Mathematical statisticians	1,209	1,225	1,237
Female	440	462	469
Male	769	763	768
Not reported	0	0	0
Mathematicians	1,107	1,086	1,025
Female	370	366	356
Male	737	720	669
Not reported	0	0	0
Operations research analysts	3,068	3,134	3,164
Female	807	830	838
Male	2,261	2,304	2,326
Not reported	0	0	0
Statisticians	2,561	2,647	2,656
Female	1,113	1,173	1,186
Male	1,448	1,474	1,470
Not reported	0	0	0
Life scientists	34,559	35,317	35,351
Female	11,141	11,702	11,913
Male	23,417	23,615	23,438
Not reported	1	0	0
Agricultural extension specialists	22	24	25
Female	6	7	6
Male	16	17	19

TABLE 4. Federal scientists and engineers, by major occupational group and OPM series and by sex: 2003–05

Major occupational group and OPM series[a]	2003	2004	2005
Not reported	0	0	0
Agronomists	265	275	279
Female	28	27	28
Male	237	248	251
Not reported	0	0	0
Animal scientists	98	97	100
Female	18	17	18
Male	80	80	82
Not reported	0	0	0
Botanists	370	384	389
Female	193	194	192
Male	177	190	197
Not reported	0	0	0
Ecologists	1,112	1,127	1,129
Female	378	398	404
Male	734	729	725
Not reported	0	0	0
Entomologists	585	601	596
Female	100	107	106
Male	485	494	490
Not reported	0	0	0
Environmental protection specialists	3,866	3,879	3,838
Female	1,696	1,758	1,754
Male	2,169	2,121	2,084
Not reported	1	0	0
Fishery biologists	2,316	2,332	2,342
Female	536	546	566
Male	1,780	1,786	1,776
Not reported	0	0	0
Geneticists	401	411	407
Female	106	108	108
Male	295	303	299
Not reported	0	0	0
Horticulturalists	101	109	107
Female	32	36	37
Male	69	73	70
Not reported	0	0	0
Microbiologists	2,317	2,316	2,290
Female	993	1,001	996
Male	1,324	1,315	1,294
Not reported	0	0	0
Pharmacologists	420	413	425
Female	141	140	144
Male	279	273	281
Not reported	0	0	0
Physiologists	421	406	407
Female	109	94	98
Male	312	312	309
Not reported	0	0	0
Plant pathologists	257	290	302
Female	68	78	83

TABLE 4. Federal scientists and engineers, by major occupational group and OPM series and by sex: 2003–05

Major occupational group and OPM series[a]	2003	2004	2005
Male	189	212	219
Not reported	0	0	0
Plant physiologists	215	211	209
Female	50	50	51
Male	165	161	158
Not reported	0	0	0
Range conservationists	938	963	933
Female	208	213	211
Male	730	750	722
Not reported	0	0	0
Soil conservationists	3,956	3,978	3,975
Female	848	897	940
Male	3,108	3,081	3,035
Not reported	0	0	0
Soil scientists	1,289	1,304	1,265
Female	178	196	202
Male	1,111	1,108	1,063
Not reported	0	0	0
Toxicologists	457	457	441
Female	162	163	165
Male	295	294	276
Not reported	0	0	0
Wildlife biologists	2,268	2,282	2,250
Female	655	679	677
Male	1,613	1,603	1,573
Not reported	0	0	0
Zoologists	100	95	95
Female	17	14	14
Male	83	81	81
Not reported	0	0	0
Life scientists, general	12,785	13,363	13,547
Female	4,619	4,979	5,113
Male	8,166	8,384	8,434
Not reported	0	0	0
Physical scientists	24,355	24,187	23,876
Female	5,492	5,604	5,625
Male	18,863	18,583	18,251
Not reported	0	0	0
Astronomers and space scientists	434	440	439
Female	50	51	57
Male	384	389	382
Not reported	0	0	0
Chemists	5,580	5,475	5,315
Female	1,710	1,712	1,658
Male	3,870	3,763	3,657
Not reported	0	0	0
Geodesists	67	65	63
Female	15	15	15
Male	52	50	48
Not reported	0	0	0
Geologists	1,699	1,684	1,633

TABLE 4. Federal scientists and engineers, by major occupational group and OPM series and by sex: 2003–05

Major occupational group and OPM series[a]	2003	2004	2005
Female	337	344	339
Male	1,362	1,340	1,294
Not reported	0	0	0
Geophysicists	422	419	422
Female	64	62	69
Male	358	357	353
Not reported	0	0	0
Health physicists	701	683	669
Female	153	150	143
Male	548	533	526
Not reported	0	0	0
Hydrologists	2,532	2,515	2,465
Female	573	567	563
Male	1,959	1,948	1,902
Not reported	0	0	0
Meteorologists	2,763	2,744	2,737
Female	268	272	278
Male	2,495	2,472	2,459
Not reported	0	0	0
Oceanographers	641	628	643
Female	151	159	160
Male	490	469	483
Not reported	0	0	0
Physicists	2,591	2,533	2,469
Female	232	240	245
Male	2,359	2,293	2,224
Not reported	0	0	0
Physical scientists, general	6,925	7,001	7,021
Female	1,939	2,032	2,098
Male	4,986	4,969	4,923
Not reported	0	0	0
Social scientists	21,389	21,950	22,262
Female	8,470	8,871	9,234
Male	12,914	13,075	13,028
Not reported	5	4	0
Agricultural market analysts	125	122	121
Female	24	24	25
Male	101	98	96
Not reported	0	0	0
Agricultural market specialists	367	373	348
Female	128	127	119
Male	239	246	229
Not reported	0	0	0
Anthropologists	92	97	99
Female	41	43	43
Male	51	54	56
Not reported	0	0	0
Archeologists	999	1,018	1,018
Female	387	399	400
Male	612	619	618
Not reported	0	0	0

TABLE 4. Federal scientists and engineers, by major occupational group and OPM series and by sex: 2003–05

Major occupational group and OPM series[a]	2003	2004	2005
Civil rights analysts	43	33	34
Female	28	24	22
Male	15	9	12
Not reported	0	0	0
Economists	4,061	4,036	3,970
Female	1,257	1,254	1,234
Male	2,804	2,782	2,736
Not reported	0	0	0
Education research analysts	58	68	78
Female	31	38	43
Male	27	30	35
Not reported	0	0	0
Foreign affairs analysts	1,449	1,656	1,716
Female	472	582	640
Male	977	1,074	1,076
Not reported	0	0	0
Foreign agricultural affairs analysts	148	144	139
Female	40	37	35
Male	108	107	104
Not reported	0	0	0
Geographers	528	543	566
Female	177	184	195
Male	351	359	371
Not reported	0	0	0
Intelligence specialists	2,136	2,231	2,310
Female	394	439	465
Male	1,742	1,792	1,845
Not reported	0	0	0
International cooperation specialists	30	33	35
Female	18	24	24
Male	12	9	11
Not reported	0	0	0
International relations specialists	192	193	192
Female	69	76	78
Male	123	117	114
Not reported	0	0	0
Manpower research analysts	48	52	45
Female	31	37	31
Male	17	15	14
Not reported	0	0	0
Psychologists	4,017	4,079	4,172
Female	1,771	1,857	1,996
Male	2,246	2,222	2,176
Not reported	0	0	0
Sociologists	46	36	31
Female	23	18	15
Male	23	18	16
Not reported	0	0	0
Trade specialists	658	640	648
Female	277	270	285
Male	381	370	363

TABLE 4. Federal scientists and engineers, by major occupational group and OPM series and by sex: 2003–05

Major occupational group and OPM series[a]	2003	2004	2005
Not reported	0	0	0
Transportation industry analysts	96	99	99
Female	24	25	27
Male	72	74	72
Not reported	0	0	0
Unemployment insurance specialists	75	68	58
Female	33	28	25
Male	42	40	33
Not reported	0	0	0
Social scientists, general	6,221	6,429	6,583
Female	3,245	3,385	3,532
Male	2,971	3,040	3,051
Not reported	5	4	0
All engineers	86,263	87,137	86,336
Female	10,858	11,349	11,514
Male	75,402	75,786	74,820
Not reported	3	2	2
Aerospace engineers	8,236	8,427	8,292
Female	1,130	1,175	1,202
Male	7,106	7,252	7,090
Not reported	0	0	0
Chemical engineers	1,084	1,103	1,090
Female	257	279	280
Male	827	824	810
Not reported	0	0	0
Civil engineers	10,720	10,523	10,247
Female	1,401	1,435	1,424
Male	9,319	9,088	8,823
Not reported	0	0	0
Electrical, electronics, and computer engineers	27,070	27,385	27,060
Female	2,895	3,018	3,074
Male	24,172	24,366	23,985
Not reported	3	1	1
Computer engineers	3,657	3,943	3,952
Female	661	722	734
Male	2,995	3,221	3,218
Not reported	1	0	0
Electrical engineers	3,600	3,672	3,605
Female	385	394	394
Male	3,214	3,277	3,210
Not reported	1	1	1
Electronics engineers	19,813	19,770	19,503
Female	1,849	1,902	1,946
Male	17,963	17,868	17,557
Not reported	1	0	0
Industrial engineers	1,705	1,648	1,624
Female	290	288	291
Male	1,415	1,360	1,333
Not reported	0	0	0
Fire prevention engineers	175	163	154
Female	17	14	13

TABLE 4. Federal scientists and engineers, by major occupational group and OPM series and by sex: 2003–05

Major occupational group and OPM series[a]	2003	2004	2005
Male	158	149	141
Not reported	0	0	0
Industrial engineers	1,053	1,013	1,016
Female	208	213	219
Male	845	800	797
Not reported	0	0	0
Safety engineers	477	472	454
Female	65	61	59
Male	412	411	395
Not reported	0	0	0
Mechanical engineers	9,645	9,838	9,701
Female	770	837	844
Male	8,875	9,001	8,857
Not reported	0	0	0
Other engineers	27,803	28,213	28,322
Female	4,115	4,317	4,399
Male	23,688	23,895	23,922
Not reported	0	1	1
Agricultural engineers	358	371	366
Female	61	61	62
Male	297	310	304
Not reported	0	0	0
Biomedical engineers	353	371	370
Female	87	104	105
Male	266	267	265
Not reported	0	0	0
Ceramic engineers	44	44	42
Female	10	11	10
Male	34	33	32
Not reported	0	0	0
Environmental engineers	4,818	4,733	4,648
Female	1,245	1,260	1,243
Male	3,573	3,473	3,405
Not reported	0	0	0
Materials engineers	1,103	1,137	1,135
Female	190	198	201
Male	913	939	934
Not reported	0	0	0
Metallurgists	89	80	72
Female	3	3	2
Male	86	77	70
Not reported	0	0	0
Mining engineers	218	214	210
Female	14	14	15
Male	204	200	195
Not reported	0	0	0
Naval architects	741	732	714
Female	71	73	72
Male	670	658	641
Not reported	0	1	1
Nuclear engineers	1,638	1,699	1,698

TABLE 4. Federal scientists and engineers, by major occupational group and OPM series and by sex: 2003–05

Major occupational group and OPM series[a]	2003	2004	2005
Female	173	181	178
Male	1,465	1,518	1,520
Not reported	0	0	0
Petroleum engineers	273	271	270
Female	29	29	26
Male	244	242	244
Not reported	0	0	0
Welding engineers	40	45	45
Female	3	4	4
Male	37	41	41
Not reported	0	0	0
Engineers, general	18,128	18,516	18,752
Female	2,229	2,379	2,481
Male	15,899	16,137	16,271
Not reported	0	0	0

OPM = U.S. Office of Personnel Management.

[a] OPM series are listed alphabetically within the major occupational groups used by the National Science Foundation's Scientists and Engineers Statistical Data System (see crosswalk, appendix B).

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 5. Federal scientists and engineers, by major occupational group and highest degree: 2003–05

Major occupational group and highest degree	2003	2004	2005
All science and engineering occupations	206,620	209,994	209,747
Doctorate	26,186	26,847	26,852
Professional	1,568	1,547	1,501
Master's	57,114	59,658	60,315
Bachelor's	121,752	121,942	121,079
All scientists	120,357	122,857	123,411
Doctorate	22,181	22,665	22,677
Professional	1,169	1,166	1,134
Master's	34,828	36,170	36,760
Bachelor's	62,179	62,856	62,840
Computer and mathematical scientists	40,054	41,403	41,922
Doctorate	1,821	1,885	1,871
Professional	186	191	191
Master's	9,969	10,687	11,029
Bachelor's	28,078	28,640	28,831
Life scientists	34,559	35,317	35,351
Doctorate	8,167	8,340	8,400
Professional	486	479	465
Master's	9,167	9,460	9,516
Bachelor's	16,739	17,038	16,970
Physical scientists	24,355	24,187	23,876
Doctorate	7,408	7,497	7,386
Professional	202	196	177
Master's	6,991	7,016	6,966
Bachelor's	9,754	9,478	9,347
Social scientists	21,389	21,950	22,262
Doctorate	4,785	4,943	5,020
Professional	295	300	301
Master's	8,701	9,007	9,249
Bachelor's	7,608	7,700	7,692
All engineers	86,263	87,137	86,336
Doctorate	4,005	4,182	4,175
Professional	399	381	367
Master's	22,286	23,488	23,555
Bachelor's	59,573	59,086	58,239
Aerospace engineers	8,236	8,427	8,292
Doctorate	772	798	776
Professional	24	22	26
Master's	2,651	2,734	2,701
Bachelor's	4,789	4,873	4,789
Chemical engineers	1,084	1,103	1,090
Doctorate	179	188	192
Professional	6	8	8
Master's	241	245	239
Bachelor's	658	662	651
Civil engineers	10,720	10,523	10,247
Doctorate	238	224	219
Professional	47	42	45
Master's	2,603	2,576	2,526
Bachelor's	7,832	7,681	7,457
Electrical, electronics, and computer engineers	27,070	27,385	27,060
Doctorate	860	924	906
Professional	119	115	106

TABLE 5. Federal scientists and engineers, by major occupational group and highest degree: 2003–05

Major occupational group and highest degree	2003	2004	2005
Master's	6,211	6,673	6,671
Bachelor's	19,880	19,673	19,377
Industrial engineers	1,705	1,648	1,624
Doctorate	39	37	35
Professional	11	8	8
Master's	459	461	462
Bachelor's	1,196	1,142	1,119
Mechanical engineers	9,645	9,838	9,701
Doctorate	358	373	382
Professional	29	32	28
Master's	1,757	1,925	1,956
Bachelor's	7,501	7,508	7,335
Other engineers	27,803	28,213	28,322
Doctorate	1,559	1,638	1,665
Professional	163	154	146
Master's	8,364	8,874	9,000
Bachelor's	17,717	17,547	17,511

NOTE: Professional degree signifies completion of academic requirements for selected professions such as dentistry (DDS or DMD), law (LLB or JD), medicine (MD), theology (BD), veterinary medicine (DVM), and chiropody or podiatry (DSC).

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 6. Median annual salaries of federal scientists and engineers, by major occupational group and highest degree: 2003–05

(Dollars)

Major occupational group and highest degree	2003	2004	2005
All science and engineering occupations	73,403	76,261	78,745
Doctorate	89,774	93,742	97,384
Professional	78,986	83,001	85,525
Master's	75,492	78,505	81,106
Bachelor's	67,756	70,137	71,155
All scientists	73,056	75,592	77,556
Doctorate	88,015	92,530	96,474
Professional	80,574	84,334	88,236
Master's	73,503	76,261	78,733
Bachelor's	67,804	70,286	72,035
Computer and mathematical scientists	75,034	77,706	79,521
Doctorate	94,098	99,413	102,741
Professional	79,703	83,715	87,244
Master's	78,263	81,723	83,813
Bachelor's	73,056	75,026	76,592
Life scientists	64,595	67,591	70,670
Doctorate	82,867	87,547	91,345
Professional	76,029	81,390	84,751
Master's	65,335	67,230	70,484
Bachelor's	59,677	61,998	64,019
Physical scientists	79,629	81,831	85,656
Doctorate	95,204	99,413	103,098
Professional	86,376	90,048	94,725
Master's	78,799	81,778	84,039
Bachelor's	71,743	74,842	77,372
Social scientists	71,357	74,306	75,868
Doctorate	87,289	90,692	93,643
Professional	83,319	88,051	89,626
Master's	67,756	70,396	72,262
Bachelor's	61,942	65,002	67,077
All engineers	75,545	78,387	81,613
Doctorate	93,424	96,637	100,129
Professional	78,615	81,778	83,819
Master's	79,629	81,778	83,819
Bachelor's	73,503	75,487	77,372
Aerospace engineers	83,145	86,901	90,845
Doctorate	95,215	100,260	103,034
Professional	88,112	93,527	97,437
Master's	86,132	90,354	93,643
Bachelor's	79,899	83,715	86,353
Chemical engineers	73,741	76,048	78,745
Doctorate	87,289	91,751	95,417
Professional	76,865	79,448	82,967
Master's	79,629	81,778	83,819
Bachelor's	68,678	68,766	68,776
Civil engineers	68,678	70,529	73,074
Doctorate	87,279	88,312	90,095
Professional	68,678	74,370	72,291
Master's	71,520	74,413	77,372
Bachelor's	68,678	70,529	72,291
Electrical, electronics, and computer engineers	75,545	77,584	79,521

TABLE 6. Median annual salaries of federal scientists and engineers, by major occupational group and highest degree: 2003–05

(Dollars)

Major occupational group and highest degree	2003	2004	2005
Doctorate	89,182	92,524	95,923
Professional	76,810	80,331	82,788
Master's	79,623	81,778	83,819
Bachelor's	73,503	75,487	77,372
Industrial engineers	69,419	71,293	73,074
Doctorate	93,924	99,765	103,151
Professional	73,503	79,020	75,910
Master's	73,503	76,261	78,988
Bachelor's	68,678	70,529	72,291
Mechanical engineers	68,678	70,529	72,291
Doctorate	82,672	86,531	90,401
Professional	72,747	72,342	78,989
Master's	73,223	75,487	78,014
Bachelor's	67,828	69,247	70,484
Other engineers	79,629	82,507	86,353
Doctorate	100,505	102,273	105,801
Professional	86,703	90,766	94,053
Master's	84,705	88,080	91,344
Bachelor's	79,344	81,769	83,819

NOTE: Professional degree signifies completion of academic requirements for selected professions such as dentistry (DDS or DMD), law (LLB or JD), medicine (MD), theology (BD), veterinary medicine (DVM), chiropody or podiatry (DSC).

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 7. Federal scientists and engineers, by major occupational group and primary work activity: 2003–05

Major occupational group and primary work activity	2003	2004	2005
All science and engineering occupations	206,620	209,994	209,747
Clinical practice, counseling, and ancillary medical services	4,894	5,034	5,343
Construction	3,983	4,028	4,061
Data collection, processing, and analysis	13,965	13,975	13,944
Design	10,219	10,098	9,777
Development	19,583	19,715	19,770
Installations, operations, and maintenance	8,471	8,281	8,130
Management	9,713	9,855	9,810
Natural resources operations	16,039	16,397	16,359
Planning	4,591	4,551	4,446
Production	2,427	2,308	2,178
Regulatory enforcement and licensing	6,104	6,269	6,332
Research	19,957	19,752	19,430
Research contract and grant administration	1,134	1,128	1,100
Scientific and technical information	4,212	4,292	4,443
Standards and specifications	1,184	1,256	1,241
Teaching and training	367	409	422
Technical assistance and consulting	4,610	4,727	4,523
Test and evaluation	7,535	7,775	7,713
Other, not elsewhere classified	14,753	15,736	15,981
Activity unknown	52,879	54,408	54,744
All scientists	120,357	122,857	123,411
Clinical practice, counseling, and ancillary medical services	4,840	4,984	5,214
Construction	146	156	155
Data collection, processing, and analysis	12,909	12,947	12,915
Design	399	422	401
Development	3,843	3,835	3,775
Installations, operations, and maintenance	495	495	522
Management	3,487	3,551	3,522
Natural resources operations	14,548	14,900	14,903
Planning	2,359	2,324	2,210
Production	108	95	95
Regulatory enforcement and licensing	3,075	3,212	3,283
Research	15,632	15,335	15,126
Research contract and grant administration	908	925	919
Scientific and technical information	2,711	2,757	2,841
Standards and specifications	289	287	295
Teaching and training	236	270	277
Technical assistance and consulting	2,774	2,824	2,695
Test and evaluation	2,166	2,185	2,152
Other, not elsewhere classified	8,026	8,585	8,855
Activity unknown	41,406	42,768	43,256
Computer and mathematical scientists	40,054	41,403	41,922
Clinical practice, counseling, and ancillary medical services	15	14	13
Construction	1	1	1
Data collection, processing, and analysis	3,298	3,307	3,279
Design	76	112	100
Development	2,271	2,246	2,225
Installations, operations, and maintenance	156	156	170
Management	320	314	301
Natural resources operations	18	18	21
Planning	216	226	223
Production	25	25	24

TABLE 7. Federal scientists and engineers, by major occupational group and primary work activity: 2003–05

Major occupational group and primary work activity	2003	2004	2005
Regulatory enforcement and licensing	145	158	150
Research	1,251	1,316	1,352
Research contract and grant administration	95	100	96
Scientific and technical information	203	196	208
Standards and specifications	25	31	34
Teaching and training	11	10	11
Technical assistance and consulting	156	156	154
Test and evaluation	527	572	593
Other, not elsewhere classified	872	982	1,036
Activity unknown	30,373	31,463	31,931
Life scientists	34,559	35,317	35,351
Clinical practice, counseling, and ancillary medical services	325	341	326
Construction	56	53	58
Data collection, processing, and analysis	1,630	1,707	1,753
Design	49	47	49
Development	256	268	260
Installations, operations, and maintenance	62	56	59
Management	1,108	1,204	1,172
Natural resources operations	12,693	13,022	13,054
Planning	934	916	867
Production	1	1	2
Regulatory enforcement and licensing	1,223	1,305	1,343
Research	7,159	6,891	6,858
Research contract and grant administration	303	316	329
Scientific and technical information	887	945	1,017
Standards and specifications	79	81	81
Teaching and training	75	94	93
Technical assistance and consulting	1,078	1,128	1,061
Test and evaluation	463	469	454
Other, not elsewhere classified	2,258	2,531	2,611
Activity unknown	3,920	3,942	3,904
Physical scientists	24,355	24,187	23,876
Clinical practice, counseling, and ancillary medical services	170	172	168
Construction	73	88	85
Data collection, processing, and analysis	5,629	5,579	5,500
Design	245	231	225
Development	1,073	1,065	1,039
Installations, operations, and maintenance	271	276	285
Management	1,352	1,318	1,352
Natural resources operations	1,092	1,090	1,059
Planning	394	400	393
Production	79	66	67
Regulatory enforcement and licensing	1,565	1,598	1,629
Research	5,307	5,242	5,140
Research contract and grant administration	328	313	294
Scientific and technical information	1,352	1,345	1,365
Standards and specifications	124	121	122
Teaching and training	80	83	83
Technical assistance and consulting	923	935	906
Test and evaluation	1,098	1,071	1,039
Other, not elsewhere classified	1,554	1,574	1,564
Activity unknown	1,646	1,620	1,561
Social scientists	21,389	21,950	22,262
Clinical practice, counseling, and ancillary medical services	4,330	4,457	4,707

TABLE 7. Federal scientists and engineers, by major occupational group and primary work activity: 2003–05

Major occupational group and primary work activity	2003	2004	2005
Construction	16	14	11
Data collection, processing, and analysis	2,352	2,354	2,383
Design	29	32	27
Development	243	256	251
Installations, operations, and maintenance	6	7	8
Management	707	715	697
Natural resources operations	745	770	769
Planning	815	782	727
Production	3	3	2
Regulatory enforcement and licensing	142	151	161
Research	1,915	1,886	1,776
Research contract and grant administration	182	196	200
Scientific and technical information	269	271	251
Standards and specifications	61	54	58
Teaching and training	70	83	90
Technical assistance and consulting	617	605	574
Test and evaluation	78	73	66
Other, not elsewhere classified	3,342	3,498	3,644
Activity unknown	5,467	5,743	5,860
All engineers	86,263	87,137	86,336
Clinical practice, counseling, and ancillary medical services	54	50	129
Construction	3,837	3,872	3,906
Data collection, processing, and analysis	1,056	1,028	1,029
Design	9,820	9,676	9,376
Development	15,740	15,880	15,995
Installations, operations, and maintenance	7,976	7,786	7,608
Management	6,226	6,304	6,288
Natural resources operations	1,491	1,497	1,456
Planning	2,232	2,227	2,236
Production	2,319	2,213	2,083
Regulatory enforcement and licensing	3,029	3,057	3,049
Research	4,325	4,417	4,304
Research contract and grant administration	226	203	181
Teaching and training	1,501	1,535	1,602
Technical assistance and consulting	895	969	946
Test and evaluation	131	139	145
Scientific and technical information	1,836	1,903	1,828
Standards and specifications	5,369	5,590	5,561
Other, not elsewhere classified	6,727	7,151	7,126
Activity unknown	11,473	11,640	11,488
Aerospace engineers	8,236	8,427	8,292
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	0	0	2
Data collection, processing, and analysis	63	64	74
Design	360	349	340
Development	3,384	3,498	3,511
Installations, operations, and maintenance	261	252	269
Management	646	696	691
Natural resources operations	0	0	0
Planning	56	47	45
Production	243	234	204
Regulatory enforcement and licensing	206	203	192
Research	1,125	1,120	1,005
Research contract and grant administration	11	10	10

TABLE 7. Federal scientists and engineers, by major occupational group and primary work activity: 2003–05

Major occupational group and primary work activity	2003	2004	2005
Scientific and technical information	170	166	167
Standards and specifications	127	154	166
Teaching and training	8	8	7
Technical assistance and consulting	28	31	35
Test and evaluation	847	904	885
Other, not elsewhere classified	342	341	355
Activity unknown	359	350	334
Chemical engineers	1,084	1,103	1,090
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	5	5	7
Data collection, processing, and analysis	63	58	54
Design	28	25	23
Development	264	259	251
Installations, operations, and maintenance	12	11	10
Management	37	33	29
Natural resources operations	4	3	3
Planning	4	4	3
Production	41	38	31
Regulatory enforcement and licensing	25	24	31
Research	148	169	162
Research contract and grant administration	16	15	12
Scientific and technical information	48	60	74
Standards and specifications	14	15	11
Teaching and training	1	1	1
Technical assistance and consulting	17	15	15
Test and evaluation	28	33	35
Other, not elsewhere classified	116	127	130
Activity unknown	213	208	208
Civil engineers	10,720	10,523	10,247
Clinical practice, counseling, and ancillary medical services	0	0	0
Construction	2,153	2,135	2,100
Data collection, processing, and analysis	156	139	139
Design	3,252	3,183	3,080
Development	159	149	142
Installations, operations, and maintenance	518	467	464
Management	633	618	591
Natural resources operations	803	842	816
Planning	880	840	824
Production	11	11	9
Regulatory enforcement and licensing	182	180	189
Research	339	347	344
Research contract and grant administration	15	14	12
Scientific and technical information	70	70	78
Standards and specifications	56	49	50
Teaching and training	3	5	2
Technical assistance and consulting	466	492	487
Test and evaluation	55	47	47
Other, not elsewhere classified	906	900	844
Activity unknown	63	35	29
Electrical, electronics, and computer engineers	27,070	27,385	27,060
Clinical practice, counseling, and ancillary medical services	3	3	3
Construction	272	281	286
Data collection, processing, and analysis	287	291	284

TABLE 7. Federal scientists and engineers, by major occupational group and primary work activity: 2003–05

Major occupational group and primary work activity	2003	2004	2005
Design	2,144	2,175	2,091
Development	6,888	6,875	6,795
Installations, operations, and maintenance	3,461	3,346	3,273
Management	725	721	680
Natural resources operations	15	11	12
Planning	216	236	265
Production	681	638	573
Regulatory enforcement and licensing	299	287	278
Research	963	991	1,002
Research contract and grant administration	27	27	27
Scientific and technical information	359	394	417
Standards and specifications	199	228	228
Teaching and training	30	31	26
Technical assistance and consulting	182	207	209
Test and evaluation	2,027	2,117	2,067
Other, not elsewhere classified	1,263	1,339	1,390
Activity unknown	7,029	7,187	7,154
Industrial engineers	1,705	1,648	1,624
Clinical practice, counseling, and ancillary medical services	4	3	3
Construction	24	22	100
Data collection, processing, and analysis	18	16	18
Design	100	91	100
Development	179	179	198
Installations, operations, and maintenance	222	204	181
Management	140	131	116
Natural resources operations	2	1	1
Planning	46	44	46
Production	237	225	229
Regulatory enforcement and licensing	128	123	69
Research	53	46	47
Research contract and grant administration	9	7	6
Scientific and technical information	12	10	13
Standards and specifications	46	53	49
Teaching and training	5	5	5
Technical assistance and consulting	32	35	37
Test and evaluation	31	32	36
Other, not elsewhere classified	268	263	238
Activity unknown	149	158	132
Mechanical engineers	9,645	9,838	9,701
Clinical practice, counseling, and ancillary medical services	1	1	1
Construction	330	352	342
Data collection, processing, and analysis	54	50	49
Design	1,730	1,784	1,722
Development	1,584	1,616	1,649
Installations, operations, and maintenance	841	793	750
Management	200	200	192
Natural resources operations	4	2	2
Planning	51	51	61
Production	248	259	264
Regulatory enforcement and licensing	53	59	59
Research	392	381	399
Research contract and grant administration	18	15	15
Scientific and technical information	157	168	174
Standards and specifications	78	83	72

TABLE 7. Federal scientists and engineers, by major occupational group and primary work activity: 2003–05

Major occupational group and primary work activity	2003	2004	2005
Teaching and training	1	1	0
Technical assistance and consulting	68	53	57
Test and evaluation	693	705	707
Other, not elsewhere classified	640	691	661
Activity unknown	2,502	2,574	2,525
Other engineers	27,803	28,213	28,322
Clinical practice, counseling, and ancillary medical services	46	43	122
Construction	1,053	1,077	1,069
Data collection, processing, and analysis	415	410	411
Design	2,206	2,069	2,020
Development	3,282	3,304	3,449
Installations, operations, and maintenance	2,661	2,713	2,661
Management	3,845	3,905	3,989
Natural resources operations	663	638	622
Planning	979	1,005	992
Production	858	808	773
Regulatory enforcement and licensing	2,136	2,181	2,231
Research	1,305	1,363	1,345
Research contract and grant administration	130	115	99
Scientific and technical information	685	667	679
Standards and specifications	375	387	370
Teaching and training	83	88	104
Technical assistance and consulting	1,043	1,070	988
Test and evaluation	1,688	1,752	1,784
Other, not elsewhere classified	3,192	3,490	3,508
Activity unknown	1,158	1,128	1,106

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 8. Federal scientists and engineers, by major occupational group and race/ethnicity: 2003–05

Major occupational group and race/ethnicity	2003	2004	2005
All science and engineering occupations	206,620	209,994	209,747
American Indian/Alaska Native	1,862	1,886	1,925
Asian/Pacific Islander	17,248	17,687	18,049
Black	12,635	13,168	13,449
Hispanic	8,058	8,456	8,712
White	166,256	168,452	167,293
All other	473	255	210
No report	88	90	109
All scientists	120,357	122,857	123,411
American Indian/Alaska Native	1,265	1,280	1,314
Asian/Pacific Islander	7,750	8,094	8,387
Black	8,850	9,276	9,532
Hispanic	3,966	4,203	4,408
White	98,164	99,737	99,499
All other	287	191	177
No report	75	76	94
Computer and mathematical scientists	40,054	41,403	41,922
American Indian/Alaska Native	326	336	344
Asian/Pacific Islander	3,420	3,668	3,875
Black	4,370	4,711	4,927
Hispanic	1,353	1,466	1,540
White	30,461	31,152	31,163
All other	115	57	49
No report	9	13	24
Life scientists	34,559	35,317	35,351
American Indian/Alaska Native	515	520	545
Asian/Pacific Islander	2,019	2,073	2,130
Black	1,432	1,454	1,425
Hispanic	1,150	1,210	1,258
White	29,318	29,945	29,881
All other	87	76	73
No report	38	39	39
Physical scientists	24,355	24,187	23,876
American Indian/Alaska Native	145	145	140
Asian/Pacific Islander	1,660	1,663	1,645
Black	889	884	892
Hispanic	643	664	678
White	20,958	20,783	20,467
All other	38	27	28
No report	22	21	26
Social scientists	21,389	21,950	22,262
American Indian/Alaska Native	279	279	285
Asian/Pacific Islander	651	690	737
Black	2,159	2,227	2,288
Hispanic	820	863	932
White	17,427	17,857	17,988
All other	47	31	27
No report	6	3	5
All engineers	86,263	87,137	86,336
American Indian/Alaska Native	597	606	611
Asian/Pacific Islander	9,498	9,593	9,662
Black	3,785	3,892	3,917
Hispanic	4,092	4,253	4,304
White	68,092	68,715	67,794

TABLE 8. Federal scientists and engineers, by major occupational group and race/ethnicity: 2003–05

Major occupational group and race/ethnicity	2003	2004	2005
All other	186	64	33
No report	13	14	15
Aerospace engineers	8,236	8,427	8,292
American Indian/Alaska Native	38	43	42
Asian/Pacific Islander	602	609	609
Black	330	349	348
Hispanic	356	376	383
White	6,905	7,047	6,910
All other	5	3	0
No report	0	0	0
Chemical engineers	1,084	1,103	1,090
American Indian/Alaska Native	1	0	0
Asian/Pacific Islander	138	145	144
Black	39	47	47
Hispanic	50	55	55
White	851	856	844
All other	5	0	0
No report	0	0	0
Civil engineers	10,720	10,523	10,247
American Indian/Alaska Native	140	151	142
Asian/Pacific Islander	968	931	899
Black	364	369	361
Hispanic	507	518	513
White	8,719	8,535	8,317
All other	21	18	14
No report	1	1	1
Electrical, electronics, and computer engineers	27,070	27,385	27,060
American Indian/Alaska Native	137	145	145
Asian/Pacific Islander	4,034	4,141	4,222
Black	1,370	1,419	1,445
Hispanic	1,425	1,481	1,503
White	20,055	20,178	19,736
All other	46	18	5
No report	3	3	4
Industrial engineers	1,705	1,648	1,624
American Indian/Alaska Native	11	12	11
Asian/Pacific Islander	159	152	150
Black	117	105	107
Hispanic	81	83	83
White	1,325	1,291	1,272
All other	11	5	1
No report	1	0	0
Mechanical engineers	9,645	9,838	9,701
American Indian/Alaska Native	38	38	42
Asian/Pacific Islander	982	999	975
Black	320	332	320
Hispanic	366	375	376
White	7,910	8,090	7,986
All other	28	3	2
No report	1	1	0
Other engineers	27,803	28,213	28,322
American Indian/Alaska Native	232	217	229
Asian/Pacific Islander	2,615	2,616	2,663
Black	1,245	1,271	1,289
Hispanic	1,307	1,365	1,391

TABLE 8. Federal scientists and engineers, by major occupational group and race/ethnicity: 2003–05

Major occupational group and race/ethnicity	2003	2004	2005
White	22,327	22,718	22,729
All other	70	17	11
No report	7	9	10

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 9. Federal scientists and engineers, by major occupational group and age: 2003–05

Major occupational group and age	2003	2004	2005
All science and engineering occupations	206,620	209,994	209,747
Under 35 years	29,924	31,591	31,504
35–39 years	24,829	23,207	21,629
40–44 years	37,435	37,130	35,428
45–49 years	36,058	37,442	38,687
50–54 years	34,520	34,978	35,554
55–59 years	26,273	27,163	27,884
60–64 years	12,165	12,767	13,183
65 years and over	5,416	5,716	5,878
All scientists	120,357	122,857	123,411
Under 35 years	16,984	17,730	17,588
35–39 years	13,389	13,272	13,162
40–44 years	18,487	18,563	18,177
45–49 years	21,523	21,335	21,127
50–54 years	22,570	23,067	23,267
55–59 years	16,793	17,564	18,183
60–64 years	7,505	8,043	8,483
65 years and over	3,106	3,283	3,424
Computer and mathematical scientists	40,054	41,403	41,922
Under 35 years	5,304	5,785	5,889
35–39 years	4,561	4,395	4,235
40–44 years	6,857	7,080	7,025
45–49 years	7,328	7,478	7,677
50–54 years	7,648	7,770	7,786
55–59 years	5,575	5,915	6,087
60–64 years	2,151	2,316	2,532
65 years and over	630	664	691
Life scientists	34,559	35,317	35,351
Under 35 years	5,095	5,342	5,146
35–39 years	4,000	4,011	4,002
40–44 years	5,259	5,227	5,097
45–49 years	6,587	6,406	6,166
50–54 years	6,942	7,160	7,268
55–59 years	4,390	4,667	4,990
60–64 years	1,665	1,842	1,941
65 years and over	621	662	741
Physical scientists	24,355	24,187	23,876
Under 35 years	2,731	2,666	2,604
35–39 years	2,372	2,288	2,184
40–44 years	3,644	3,456	3,244
45–49 years	4,382	4,311	4,205
50–54 years	4,347	4,439	4,511
55–59 years	3,614	3,689	3,718
60–64 years	2,157	2,174	2,197
65 years and over	1,108	1,164	1,213
Social scientists	21,389	21,950	22,262
Under 35 years	3,854	3,937	3,949
35–39 years	2,456	2,578	2,741
40–44 years	2,727	2,800	2,811
45–49 years	3,226	3,140	3,079
50–54 years	3,633	3,698	3,702
55–59 years	3,214	3,293	3,388
60–64 years	1,532	1,711	1,813
65 years and over	747	793	779

TABLE 9. Federal scientists and engineers, by major occupational group and age: 2003–05

Major occupational group and age	2003	2004	2005
All engineers	86,263	87,137	86,336
Under 35 years	12,940	13,861	13,916
35–39 years	11,440	9,935	8,467
40–44 years	18,948	18,567	17,251
45–49 years	14,535	16,107	17,560
50–54 years	11,950	11,911	12,287
55–59 years	9,480	9,599	9,701
60–64 years	4,660	4,724	4,700
65 years and over	2,310	2,433	2,454
Aerospace engineers	8,236	8,427	8,292
Under 35 years	1,387	1,455	1,452
35–39 years	1,431	1,264	1,050
40–44 years	2,018	2,087	1,932
45–49 years	1,306	1,502	1,735
50–54 years	794	836	900
55–59 years	631	618	608
60–64 years	425	401	375
65 years and over	244	264	240
Chemical engineers	1,084	1,103	1,090
Under 35 years	271	318	338
35–39 years	100	89	71
40–44 years	221	195	158
45–49 years	190	192	212
50–54 years	111	111	120
55–59 years	90	96	84
60–64 years	60	59	61
65 years and over	41	43	46
Civil engineers	10,720	10,523	10,247
Under 35 years	1,595	1,623	1,450
35–39 years	1,041	997	969
40–44 years	1,760	1,574	1,420
45–49 years	2,066	2,119	2,075
50–54 years	1,982	1,920	1,978
55–59 years	1,400	1,401	1,444
60–64 years	608	619	627
65 years and over	268	270	284
Electrical, electronics, and computer engineers	27,070	27,385	27,060
Under 35 years	4,167	4,616	4,765
35–39 years	4,214	3,457	2,793
40–44 years	6,445	6,457	6,107
45–49 years	4,222	4,704	5,232
50–54 years	3,389	3,406	3,461
55–59 years	2,677	2,708	2,732
60–64 years	1,319	1,373	1,298
65 years and over	637	664	672
Industrial engineers	1,705	1,648	1,624
Under 35 years	299	323	314
35–39 years	212	165	151
40–44 years	334	310	302
45–49 years	271	283	303
50–54 years	236	229	208
55–59 years	213	204	204
60–64 years	91	88	96
65 years and over	49	46	46

TABLE 9. Federal scientists and engineers, by major occupational group and age: 2003–05

Major occupational group and age	2003	2004	2005
Mechanical engineers	9,645	9,838	9,701
Under 35 years	2,385	2,551	2,479
35–39 years	1,229	1,094	1,000
40–44 years	2,102	2,031	1,844
45–49 years	1,428	1,627	1,784
50–54 years	999	1,043	1,087
55–59 years	861	849	842
60–64 years	421	403	419
65 years and over	220	240	246
Other engineers	27,803	28,213	28,322
Under 35 years	2,836	2,975	3,118
35–39 years	3,213	2,869	2,433
40–44 years	6,068	5,913	5,488
45–49 years	5,052	5,680	6,219
50–54 years	4,439	4,366	4,533
55–59 years	3,608	3,723	3,787
60–64 years	1,736	1,781	1,824
65 years and over	851	906	920

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 10. Federal scientists and engineers, by primary work activity, age, and sex: 2003–05

Primary work activity and age	All[a]			Female			Male		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
All activities	206,620	209,994	209,747	49,410	51,381	52,230	157,199	158,604	157,513
Under 35 years	29,924	31,591	31,504	10,704	11,362	11,369	19,215	20,226	20,134
35–39 years	24,829	23,207	21,629	7,355	7,058	6,730	17,472	16,146	14,899
40–44 years	37,435	37,130	35,428	9,945	10,053	9,736	27,490	27,077	25,690
45–49 years	36,058	37,442	38,687	8,957	9,263	9,636	27,101	28,179	29,051
50–54 years	34,520	34,978	35,554	6,704	7,285	7,839	27,814	27,693	27,715
55–59 years	26,273	27,163	27,884	3,712	4,126	4,486	22,560	23,036	23,398
60–64 years	12,165	12,767	13,183	1,497	1,641	1,784	10,667	11,124	11,398
65 years and over	5,416	5,716	5,878	536	593	650	4,880	5,123	5,228
Clinical practice, counseling, and ancillary medical services	4,894	5,034	5,343	2,185	2,299	2,502	2,709	2,735	2,841
Under 35 years	778	802	847	516	541	585	262	261	262
35–39 years	439	481	571	247	262	325	192	219	246
40–44 years	552	553	563	298	312	324	254	241	239
45–49 years	782	753	758	387	373	382	395	380	376
50–54 years	899	906	958	338	370	424	561	536	534
55–59 years	904	946	947	237	261	259	667	685	688
60–64 years	403	445	524	120	136	148	283	309	376
65 years and over	137	148	175	42	44	55	95	104	120
Construction	3,983	4,028	4,061	454	484	486	3,529	3,544	3,575
Under 35 years	446	451	416	130	124	112	316	327	304
35–39 years	399	378	351	90	83	82	309	295	269
40–44 years	722	638	604	105	103	108	617	535	496
45–49 years	767	856	839	81	99	98	686	757	741
50–54 years	699	737	749	29	44	48	670	693	701
55–59 years	554	566	636	13	22	27	541	544	609
60–64 years	267	268	326	5	7	9	262	261	317
65 years and over	129	134	140	1	2	2	128	132	138
Data collection, processing, and analysis	13,965	13,975	13,944	4,147	4,250	4,282	9,818	9,725	9,662
Under 35 years	2,925	2,983	2,967	1,239	1,306	1,295	1,686	1,677	1,672
35–39 years	1,837	1,845	1,766	570	572	548	1,267	1,273	1,218
40–44 years	2,164	2,113	2,097	668	649	654	1,496	1,464	1,443
45–49 years	2,224	2,155	2,115	648	657	629	1,576	1,498	1,486
50–54 years	2,279	2,269	2,287	563	574	624	1,716	1,695	1,663
55–59 years	1,548	1,582	1,653	282	302	336	1,266	1,280	1,317
60–64 years	714	743	755	130	145	143	584	598	612
65 years and over	274	285	304	47	45	53	227	240	251
Design	10,219	10,098	9,777	1,172	1,194	1,156	9,047	8,904	8,621
Under 35 years	1,602	1,686	1,593	341	364	333	1,261	1,322	1,260
35–39 years	1,220	1,067	926	205	200	175	1,015	867	751

TABLE 10. Federal scientists and engineers, by primary work activity, age, and sex: 2003–05

Primary work activity and age	All[a]			Female			Male		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
40–44 years	1,967	1,849	1,670	313	290	262	1,654	1,559	1,408
45–49 years	1,822	1,879	1,894	184	197	213	1,638	1,682	1,681
50–54 years	1,591	1,531	1,568	81	87	112	1,510	1,444	1,456
55–59 years	1,239	1,282	1,295	36	41	44	1,203	1,241	1,251
60–64 years	514	541	544	7	10	11	507	531	533
65 years and over	264	263	287	5	5	6	259	258	281
Development	19,583	19,715	19,770	3,145	3,213	3,214	16,438	16,502	16,556
Under 35 years	2,936	3,240	3,397	736	798	823	2,200	2,442	2,574
35–39 years	2,882	2,406	2,023	644	544	452	2,238	1,862	1,571
40–44 years	4,538	4,532	4,242	767	802	758	3,771	3,730	3,484
45–49 years	3,337	3,594	4,064	476	502	591	2,861	3,092	3,473
50–54 years	2,428	2,483	2,656	282	311	323	2,146	2,172	2,333
55–59 years	1,863	1,855	1,823	145	147	153	1,718	1,708	1,670
60–64 years	1,051	1,023	1,024	70	80	88	981	943	936
65 years and over	548	582	541	25	29	26	523	553	515
Installation, operations, and maintenance	8,471	8,281	8,130	940	940	944	7,531	7,341	7,186
Under 35 years	1,426	1,418	1,405	271	272	281	1,155	1,146	1,124
35–39 years	1,135	970	815	196	155	138	939	815	677
40–44 years	1,854	1,730	1,575	239	232	212	1,615	1,498	1,363
45–49 years	1,467	1,580	1,701	161	183	198	1,306	1,397	1,503
50–54 years	1,146	1,138	1,168	51	72	87	1,095	1,066	1,081
55–59 years	869	866	896	14	18	24	855	848	872
60–64 years	411	409	397	7	7	4	404	402	393
65 years and over	163	170	173	1	1	0	162	169	173
Management	9,713	9,855	9,810	1,614	1,726	1,801	8,099	8,129	8,009
Under 35 years	305	337	330	131	156	143	174	181	187
35–39 years	753	714	653	238	227	200	515	487	453
40–44 years	1,745	1,788	1,699	391	415	406	1,354	1,373	1,293
45–49 years	1,711	1,880	2,014	330	353	422	1,381	1,527	1,592
50–54 years	2,118	2,061	2,075	305	335	373	1,813	1,726	1,702
55–59 years	1,827	1,806	1,800	145	164	183	1,682	1,642	1,617
60–64 years	918	936	890	55	54	58	863	882	832
65 years and over	336	333	349	19	22	16	317	311	333
Natural resources operations	16,039	16,397	16,359	4,183	4,421	4,567	11,856	11,976	11,792
Under 35 years	2,510	2,698	2,676	1,050	1,119	1,125	1,460	1,579	1,551
35–39 years	1,732	1,726	1,761	615	617	625	1,117	1,109	1,136
40–44 years	2,498	2,416	2,291	892	848	804	1,606	1,568	1,487
45–49 years	3,323	3,223	3,063	963	1,008	1,006	2,360	2,215	2,057
50–54 years	3,497	3,563	3,611	492	619	734	3,005	2,944	2,877
55–59 years	1,904	2,118	2,263	137	173	227	1,767	1,945	2,036

TABLE 10. Federal scientists and engineers, by primary work activity, age, and sex: 2003–05

Primary work activity and age	All[a]			Female			Male		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
60–64 years	478	549	584	27	28	38	451	521	546
65 years and over	97	104	110	7	9	8	90	95	102
Planning	4,591	4,551	4,446	1,042	1,104	1,082	3,549	3,447	3,364
Under 35 years	476	467	481	202	206	204	274	261	277
35–39 years	422	426	389	119	149	127	303	277	262
40–44 years	689	645	612	202	182	179	487	463	433
45–49 years	890	899	867	236	257	249	654	642	618
50–54 years	921	890	874	149	163	174	772	727	700
55–59 years	744	737	730	90	99	100	654	638	630
60–64 years	320	347	349	31	34	35	289	313	314
65 years and over	129	140	144	13	14	14	116	126	130
Production	2,427	2,308	2,178	236	240	230	2,191	2,068	1,948
Under 35 years	161	202	216	36	48	48	125	154	168
35–39 years	237	171	137	35	33	28	202	138	109
40–44 years	547	472	400	73	66	55	474	406	345
45–49 years	442	469	477	52	55	58	390	414	419
50–54 years	397	365	338	25	20	21	372	345	317
55–59 years	348	331	317	10	14	15	338	317	302
60–64 years	167	161	163	2	1	2	165	160	161
65 years and over	128	137	130	3	3	3	125	134	127
Regulatory enforcement and licensing	6,104	6,269	6,332	1,589	1,721	1,771	4,515	4,548	4,561
Under 35 years	805	883	887	363	413	424	442	470	463
35–39 years	692	645	596	271	267	247	421	378	349
40–44 years	1,005	1,009	937	326	355	343	679	654	594
45–49 years	1,044	1,059	1,128	266	273	307	778	786	821
50–54 years	994	1,033	1,032	169	200	223	825	833	809
55–59 years	848	883	947	121	128	130	727	755	817
60–64 years	460	483	510	55	64	72	405	419	438
65 years and over	256	274	295	18	21	25	238	253	270
Research	19,957	19,752	19,430	5,170	5,108	5,083	14,787	14,644	14,347
Under 35 years	2,244	2,248	2,129	918	943	890	1,326	1,305	1,239
35–39 years	2,219	2,076	1,980	755	674	641	1,464	1,402	1,339
40–44 years	3,137	2,994	2,827	964	924	890	2,173	2,070	1,937
45–49 years	3,536	3,407	3,409	987	939	942	2,549	2,468	2,467
50–54 years	3,359	3,437	3,407	724	780	829	2,635	2,657	2,578
55–59 years	2,818	2,775	2,851	483	476	507	2,335	2,299	2,344
60–64 years	1,696	1,815	1,784	225	260	261	1,471	1,555	1,523
65 years and over	948	1,000	1,043	114	112	123	834	888	920

TABLE 10. Federal scientists and engineers, by primary work activity, age, and sex: 2003–05

Primary work activity and age	All[a]			Female			Male		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
Research contract and grant administration	1,134	1,128	1,100	375	406	416	759	722	684
Under 35 years	90	91	88	50	61	67	40	30	21
35–39 years	83	88	86	37	45	50	46	43	36
40–44 years	115	101	104	56	47	42	59	54	62
45–49 years	155	166	162	56	64	64	99	102	98
50–54 years	217	199	182	70	67	63	147	132	119
55–59 years	202	222	210	64	79	82	138	143	128
60–64 years	192	166	169	35	34	34	157	132	135
65 years and over	80	95	99	7	9	14	73	86	85
Scientific and technical information	4,212	4,292	4,443	1,227	1,267	1,320	2,985	3,025	3,123
Under 35 years	694	715	790	306	310	352	388	405	438
35–39 years	515	491	460	160	154	151	355	337	309
40–44 years	747	741	708	258	257	240	489	484	468
45–49 years	745	765	796	231	240	235	514	525	561
50–54 years	696	734	770	155	173	193	541	561	577
55–59 years	469	504	537	72	84	94	397	420	443
60–64 years	234	237	265	31	36	42	203	201	223
65 years and over	112	105	117	14	13	13	98	92	104
Standards and specifications	1,184	1,256	1,241	217	241	232	967	1,015	1,009
Under 35 years	106	127	122	37	46	43	69	81	79
35–39 years	135	121	104	36	34	31	99	87	73
40–44 years	247	248	206	51	58	43	196	190	163
45–49 years	206	224	248	56	57	56	150	167	192
50–54 years	197	206	220	17	23	37	180	183	183
55–59 years	169	190	205	10	13	14	159	177	191
60–64 years	81	92	91	8	8	5	73	84	86
65 years and over	43	48	45	2	2	3	41	46	42
Teaching and training	367	409	422	79	94	101	288	315	321
Under 35 years	15	14	20	4	2	9	11	12	11
35–39 years	17	27	27	5	7	4	12	20	23
40–44 years	57	57	55	16	16	17	41	41	38
45–49 years	69	82	78	23	26	25	46	56	53
50–54 years	74	87	95	13	22	23	61	65	72
55–59 years	77	73	80	11	11	15	66	62	65
60–64 years	39	46	44	6	9	5	33	37	39
65 years and over	19	23	23	1	1	3	18	22	20
Technical assistance and consulting	4,610	4,727	4,523	1,194	1,269	1,250	3,416	3,458	3,273
Under 35 years	397	457	436	166	210	210	231	247	226

TABLE 10. Federal scientists and engineers, by primary work activity, age, and sex: 2003–05

Primary work activity and age	All[a]			Female			Male		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
35–39 years	451	444	392	167	154	140	284	290	252
40–44 years	727	711	670	243	248	227	484	463	443
45–49 years	771	828	785	192	214	213	579	614	572
50–54 years	905	891	871	195	194	209	710	697	662
55–59 years	782	791	762	147	154	154	635	637	608
60–64 years	384	403	403	58	65	72	326	338	331
65 years and over	193	202	204	26	30	25	167	172	179
Test and evaluation	7,535	7,775	7,713	1,349	1,381	1,404	6,186	6,394	6,309
Under 35 years	1,438	1,556	1,571	415	427	424	1,023	1,129	1,147
35–39 years	1,137	1,006	855	230	213	179	907	793	676
40–44 years	1,659	1,703	1,614	278	289	299	1,381	1,414	1,315
45–49 years	1,184	1,309	1,442	176	188	219	1,008	1,121	1,223
50–54 years	949	984	980	132	139	138	817	845	842
55–59 years	701	737	772	69	76	91	632	661	681
60–64 years	315	326	327	37	34	37	278	292	290
65 years and over	152	154	152	12	15	17	140	139	135
Other, not elsewhere classified	14,753	15,736	15,981	4,169	4,536	4,730	10,579	11,195	11,250
Under 35 years	2,956	3,144	3,063	1,182	1,231	1,252	1,772	1,912	1,811
35–39 years	2,141	2,124	2,061	736	777	779	1,404	1,345	1,282
40–44 years	2,780	2,927	2,867	801	877	904	1,979	2,050	1,962
45–49 years	2,355	2,621	2,759	648	695	729	1,707	1,926	2,030
50–54 years	1,914	2,071	2,219	383	453	513	1,531	1,618	1,706
55–59 years	1,529	1,656	1,722	255	304	330	1,273	1,351	1,392
60–64 years	748	814	886	124	138	158	623	675	728
65 years and over	330	379	404	40	61	65	290	318	339
Activity unknown	52,879	54,408	54,744	14,923	15,487	15,659	37,950	38,917	39,082
Under 35 years	7,614	8,072	8,070	2,611	2,785	2,749	5,000	5,285	5,320
35–39 years	6,383	6,001	5,676	1,999	1,891	1,808	4,383	4,109	3,868
40–44 years	9,685	9,903	9,687	3,004	3,083	2,969	6,681	6,820	6,717
45–49 years	9,228	9,693	10,088	2,804	2,883	3,000	6,424	6,810	7,088
50–54 years	9,240	9,393	9,494	2,531	2,639	2,691	6,707	6,754	6,803
55–59 years	6,878	7,243	7,438	1,371	1,560	1,701	5,507	5,683	5,737
60–64 years	2,773	2,963	3,148	464	491	562	2,309	2,471	2,585
65 years and over	1,078	1,140	1,143	139	155	179	939	985	964

[a] Includes those individuals who did not report sex.

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 11. American Indian/Alaska Native federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
All activities	1,862	1,886	1,925
Under 35 years	277	271	274
35–39 years	218	229	251
40–44 years	326	310	305
45–49 years	343	351	360
50–54 years	330	336	344
55–59 years	226	240	246
60–64 years	112	114	110
65 years and over	30	35	35
Clinical practice, counseling, and ancillary medical services	131	127	130
Under 35 years	14	11	13
35–39 years	11	14	17
40–44 years	16	9	6
45–49 years	25	25	25
50–54 years	17	22	23
55–59 years	23	22	24
60–64 years	23	20	15
65 years and over	2	4	7
Construction	56	68	72
Under 35 years	11	12	12
35–39 years	5	8	11
40–44 years	13	15	15
45–49 years	8	11	10
50–54 years	7	9	10
55–59 years	6	6	8
60–64 years	4	4	3
65 years and over	2	3	3
Data collection, processing, and analysis	55	64	66
Under 35 years	13	18	16
35–39 years	6	6	5
40–44 years	8	6	6
45–49 years	9	10	11
50–54 years	10	12	13
55–59 years	5	8	11
60–64 years	2	2	2
65 years and over	2	2	2
Design	92	95	87
Under 35 years	18	15	18
35–39 years	11	17	15
40–44 years	16	14	11
45–49 years	12	13	11
50–54 years	18	15	12
55–59 years	10	9	8
60–64 years	5	9	9
65 years and over	2	3	3
Development	90	94	93
Under 35 years	9	13	16
35–39 years	9	6	6
40–44 years	28	25	23
45–49 years	24	27	24
50–54 years	10	10	14
55–59 years	5	8	6
60–64 years	4	3	4
65 years and over	1	2	0

TABLE 11. American Indian/Alaska Native federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
Installation, operations, and maintenance	98	96	93
Under 35 years	14	13	11
35–39 years	10	9	12
40–44 years	23	21	17
45–49 years	20	23	23
50–54 years	12	12	12
55–59 years	11	10	11
60–64 years	2	2	3
65 years and over	6	6	4
Management	80	84	91
Under 35 years	5	5	3
35–39 years	11	10	10
40–44 years	12	14	18
45–49 years	12	14	18
50–54 years	13	13	17
55–59 years	15	16	17
60–64 years	12	12	8
65 years and over	0	0	0
Natural resources operations	404	413	435
Under 35 years	70	70	66
35–39 years	51	62	72
40–44 years	63	62	69
45–49 years	83	84	81
50–54 years	82	77	85
55–59 years	44	41	44
60–64 years	10	15	16
65 years and over	1	2	2
Planning	41	38	39
Under 35 years	4	3	4
35–39 years	3	2	2
40–44 years	7	8	6
45–49 years	9	8	10
50–54 years	11	9	10
55–59 years	5	6	6
60–64 years	1	0	0
65 years and over	1	2	1
Production	20	16	15
Under 35 years	1	1	1
35–39 years	2	0	0
40–44 years	3	4	4
45–49 years	6	5	3
50–54 years	4	2	3
55–59 years	2	2	2
60–64 years	1	1	0
65 years and over	1	1	2
Regulatory enforcement and licensing	35	40	35
Under 35 years	6	4	3
35–39 years	5	7	7
40–44 years	8	6	4
45–49 years	3	9	7
50–54 years	5	6	5
55–59 years	4	4	4
60–64 years	2	2	3
65 years and over	2	2	2

TABLE 11. American Indian/Alaska Native federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
Research	100	98	93
Under 35 years	15	13	10
35–39 years	12	13	11
40–44 years	18	17	18
45–49 years	17	16	17
50–54 years	19	22	20
55–59 years	13	12	11
60–64 years	6	5	5
65 years and over	0	0	1
Research contract and grant administration	7	8	5
Under 35 years	1	1	1
35–39 years	0	0	0
40–44 years	0	0	0
45–49 years	1	0	0
50–54 years	2	3	1
55–59 years	2	2	1
60–64 years	1	2	2
65 years and over	0	0	0
Scientific and technical information	32	25	28
Under 35 years	7	4	5
35–39 years	4	4	6
40–44 years	7	7	6
45–49 years	6	4	5
50–54 years	6	3	5
55–59 years	1	3	1
60–64 years	0	0	0
65 years and over	1	0	0
Standards and specifications	7	12	11
Under 35 years	1	0	1
35–39 years	1	3	2
40–44 years	1	2	2
45–49 years	2	3	2
50–54 years	1	2	2
55–59 years	1	2	2
60–64 years	0	0	0
65 years and over	0	0	0
Teaching and training	3	2	1
Under 35 years	0	0	0
35–39 years	0	0	0
40–44 years	0	0	0
45–49 years	0	0	0
50–54 years	0	0	0
55–59 years	2	1	0
60–64 years	1	1	1
65 years and over	0	0	0
Technical assistance and consulting	35	35	37
Under 35 years	5	6	9
35–39 years	6	6	6
40–44 years	4	3	4
45–49 years	3	2	2
50–54 years	9	10	4
55–59 years	4	4	9
60–64 years	4	4	3
65 years and over	0	0	0

TABLE 11. American Indian/Alaska Native federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
Test and evaluation	42	40	38
Under 35 years	9	7	6
35–39 years	5	5	5
40–44 years	7	8	9
45–49 years	10	6	6
50–54 years	8	10	8
55–59 years	2	3	3
60–64 years	1	1	1
65 years and over	0	0	0
Other, not elsewhere classified	126	120	139
Under 35 years	25	22	27
35–39 years	20	17	16
40–44 years	20	15	18
45–49 years	15	17	29
50–54 years	23	26	23
55–59 years	16	16	17
60–64 years	3	4	6
65 years and over	4	3	3
Activity unknown	408	411	417
Under 35 years	49	53	52
35–39 years	46	40	48
40–44 years	72	74	69
45–49 years	78	74	76
50–54 years	73	73	77
55–59 years	55	65	61
60–64 years	30	27	29
65 years and over	5	5	5

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 12. Asian/Pacific Islander federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
All activities	17,248	17,687	18,049
Under 35 years	2,827	2,957	3,029
35–39 years	2,355	2,200	2,000
40–44 years	3,286	3,383	3,404
45–49 years	2,796	2,930	3,153
50–54 years	2,269	2,327	2,424
55–59 years	1,756	1,845	1,882
60–64 years	1,224	1,256	1,301
65 years and over	735	789	856
Clinical practice, counseling, and ancillary medical services	158	190	207
Under 35 years	39	43	49
35–39 years	19	27	29
40–44 years	11	23	24
45–49 years	23	25	29
50–54 years	23	23	26
55–59 years	18	21	20
60–64 years	16	14	15
65 years and over	9	14	15
Construction	465	463	440
Under 35 years	44	52	42
35–39 years	41	41	30
40–44 years	69	57	56
45–49 years	77	79	82
50–54 years	70	66	60
55–59 years	68	69	65
60–64 years	71	67	67
65 years and over	25	32	38
Data collection, processing, and analysis	720	716	727
Under 35 years	117	124	135
35–39 years	72	70	70
40–44 years	117	119	115
45–49 years	110	101	99
50–54 years	104	100	106
55–59 years	72	83	86
60–64 years	81	66	59
65 years and over	47	53	57
Design	1,187	1,163	1,122
Under 35 years	150	154	141
35–39 years	138	117	99
40–44 years	220	215	201
45–49 years	181	183	189
50–54 years	156	149	154
55–59 years	157	158	153
60–64 years	120	122	116
65 years and over	65	65	69
Development	1,788	1,799	1,831
Under 35 years	302	308	323
35–39 years	306	243	202
40–44 years	364	399	411
45–49 years	257	277	315
50–54 years	230	239	238
55–59 years	157	165	176
60–64 years	99	101	103
65 years and over	73	67	63
Installation, operations, and maintenance	1,344	1,309	1,272
Under 35 years	339	317	293

TABLE 12. Asian/Pacific Islander federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
35–39 years	208	178	142
40–44 years	273	260	261
45–49 years	199	211	223
50–54 years	147	152	151
55–59 years	99	101	100
60–64 years	49	59	69
65 years and over	30	31	33
Management	561	542	559
Under 35 years	16	15	19
35–39 years	43	45	50
40–44 years	83	81	85
45–49 years	99	110	112
50–54 years	110	96	101
55–59 years	99	89	81
60–64 years	74	69	73
65 years and over	37	37	38
Natural resources operations	229	232	243
Under 35 years	47	51	52
35–39 years	27	27	24
40–44 years	40	38	38
45–49 years	50	50	53
50–54 years	29	33	39
55–59 years	15	14	17
60–64 years	15	15	16
65 years and over	6	4	4
Planning	267	272	300
Under 35 years	45	43	47
35–39 years	22	22	29
40–44 years	45	43	44
45–49 years	38	48	54
50–54 years	41	42	46
55–59 years	39	35	34
60–64 years	19	19	24
65 years and over	18	20	22
Production	322	328	319
Under 35 years	20	27	32
35–39 years	35	31	23
40–44 years	56	58	48
45–49 years	67	65	67
50–54 years	51	49	50
55–59 years	43	42	47
60–64 years	31	32	26
65 years and over	19	24	26
Regulatory enforcement and licensing	736	778	806
Under 35 years	73	94	110
35–39 years	71	68	57
40–44 years	119	127	116
45–49 years	120	124	138
50–54 years	102	101	111
55–59 years	107	103	99
60–64 years	79	84	93
65 years and over	65	77	82
Research	1,958	1,919	1,944
Under 35 years	186	180	176
35–39 years	221	187	169
40–44 years	370	371	373

TABLE 12. Asian/Pacific Islander federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
45–49 years	382	344	362
50–54 years	269	290	303
55–59 years	223	226	238
60–64 years	174	188	171
65 years and over	133	133	152
Research contract and grant administration	117	126	124
Under 35 years	1	4	4
35–39 years	12	11	9
40–44 years	12	13	17
45–49 years	17	22	21
50–54 years	13	10	16
55–59 years	28	33	19
60–64 years	24	21	24
65 years and over	10	12	14
Scientific and technical information	284	299	312
Under 35 years	57	66	64
35–39 years	40	32	26
40–44 years	53	53	55
45–49 years	32	37	53
50–54 years	36	36	37
55–59 years	29	33	31
60–64 years	26	23	23
65 years and over	11	19	23
Standards and specifications	127	123	131
Under 35 years	13	10	12
35–39 years	4	8	7
40–44 years	25	19	17
45–49 years	27	25	29
50–54 years	19	21	23
55–59 years	17	20	19
60–64 years	10	10	14
65 years and over	12	10	10
Teaching and training	40	47	46
Under 35 years	1	2	2
35–39 years	1	2	1
40–44 years	9	12	11
45–49 years	10	13	13
50–54 years	11	12	10
55–59 years	3	2	5
60–64 years	3	2	1
65 years and over	2	2	3
Technical assistance and consulting	244	260	258
Under 35 years	24	22	21
35–39 years	27	37	33
40–44 years	40	43	46
45–49 years	34	35	37
50–54 years	40	43	39
55–59 years	37	36	32
60–64 years	26	27	30
65 years and over	16	17	20
Test and evaluation	767	798	816
Under 35 years	150	159	168
35–39 years	114	105	94
40–44 years	162	160	149
45–49 years	120	132	148
50–54 years	96	105	107

TABLE 12. Asian/Pacific Islander federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
55–59 years	65	69	73
60–64 years	33	40	47
65 years and over	27	28	30
Other, not elsewhere classified	1,512	1,601	1,624
Under 35 years	271	273	272
35–39 years	285	274	239
40–44 years	345	379	378
45–49 years	211	248	266
50–54 years	144	151	154
55–59 years	125	124	148
60–64 years	90	100	103
65 years and over	41	52	64
Activity unknown	4,422	4,722	4,968
Under 35 years	932	1013	1067
35–39 years	669	675	667
40–44 years	873	913	959
45–49 years	742	801	863
50–54 years	578	609	653
55–59 years	355	422	439
60–64 years	184	197	227
65 years and over	89	92	93

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 13. Black federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
All activities	12,635	13,168	13,449
Under 35 years	2,440	2,648	2,695
35–39 years	1,850	1,706	1,615
40–44 years	2,691	2,745	2,648
45–49 years	2,270	2,473	2,668
50–54 years	1,701	1,796	1,877
55–59 years	1,039	1,123	1,240
60–64 years	456	460	476
65 years and over	188	217	230
Clinical practice, counseling, and ancillary medical services	413	436	493
Under 35 years	61	70	73
35–39 years	40	46	61
40–44 years	51	44	57
45–49 years	79	85	92
50–54 years	82	80	92
55–59 years	70	78	73
60–64 years	22	24	30
65 years and over	8	9	15
Construction	168	173	185
Under 35 years	36	33	31
35–39 years	21	22	22
40–44 years	35	34	38
45–49 years	37	41	42
50–54 years	18	20	28
55–59 years	9	11	9
60–64 years	7	7	11
65 years and over	5	5	4
Data collection, processing, and analysis	942	956	970
Under 35 years	249	256	260
35–39 years	127	118	112
40–44 years	150	159	166
45–49 years	165	159	151
50–54 years	127	134	136
55–59 years	87	85	101
60–64 years	28	33	30
65 years and over	9	12	14
Design	405	415	396
Under 35 years	78	90	91
35–39 years	58	54	50
40–44 years	95	85	69
45–49 years	80	85	81
50–54 years	36	41	45
55–59 years	37	39	40
60–64 years	15	16	12
65 years and over	6	5	8
Development	1,030	1,053	1,049
Under 35 years	205	230	247
35–39 years	158	142	125
40–44 years	272	258	210
45–49 years	196	205	240
50–54 years	99	116	122
55–59 years	60	60	61
60–64 years	29	30	33
65 years and over	11	12	11

TABLE 13. Black federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
Installation, operations, and maintenance	416	403	418
Under 35 years	110	106	119
35–39 years	69	49	43
40–44 years	111	105	87
45–49 years	63	78	91
50–54 years	33	33	41
55–59 years	16	18	22
60–64 years	12	11	11
65 years and over	2	3	4
Management	438	453	461
Under 35 years	13	15	13
35–39 years	51	45	34
40–44 years	119	108	95
45–49 years	79	114	139
50–54 years	83	85	82
55–59 years	52	46	64
60–64 years	30	29	21
65 years and over	11	11	13
Natural resources operations	461	447	451
Under 35 years	101	105	102
35–39 years	47	34	39
40–44 years	79	77	67
45–49 years	84	86	86
50–54 years	89	79	75
55–59 years	47	55	71
60–64 years	9	7	6
65 years and over	5	4	5
Planning	190	194	192
Under 35 years	23	29	32
35–39 years	28	27	18
40–44 years	43	44	37
45–49 years	39	37	45
50–54 years	27	27	24
55–59 years	18	15	18
60–64 years	7	9	10
65 years and over	5	6	8
Production	120	118	113
Under 35 years	12	20	18
35–39 years	11	8	9
40–44 years	38	28	20
45–49 years	23	27	29
50–54 years	20	18	16
55–59 years	11	11	14
60–64 years	4	5	6
65 years and over	1	1	1
Regulatory enforcement and licensing	335	358	354
Under 35 years	76	90	92
35–39 years	61	59	48
40–44 years	59	57	56
45–49 years	58	62	60
50–54 years	32	41	49
55–59 years	27	26	24
60–64 years	18	21	21
65 years and over	4	2	4

TABLE 13. Black federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
Research	703	700	677
Under 35 years	140	150	125
35–39 years	128	115	107
40–44 years	127	121	123
45–49 years	104	112	110
50–54 years	82	80	84
55–59 years	70	65	69
60–64 years	36	38	37
65 years and over	16	19	22
Research contract and grant administration	55	52	63
Under 35 years	7	7	13
35–39 years	4	6	8
40–44 years	13	9	8
45–49 years	10	9	11
50–54 years	12	9	10
55–59 years	4	7	7
60–64 years	4	3	3
65 years and over	1	2	3
Scientific and technical information	211	221	215
Under 35 years	52	50	54
35–39 years	27	32	29
40–44 years	28	36	32
45–49 years	41	44	44
50–54 years	35	33	28
55–59 years	16	15	17
60–64 years	7	6	6
65 years and over	5	5	5
Standards and specifications	69	71	69
Under 35 years	10	17	15
35–39 years	10	6	6
40–44 years	19	18	17
45–49 years	8	8	10
50–54 years	9	11	10
55–59 years	4	3	5
60–64 years	7	6	5
65 years and over	2	2	1
Teaching and training	18	23	20
Under 35 years	0	0	1
35–39 years	2	1	1
40–44 years	4	4	3
45–49 years	6	9	6
50–54 years	3	5	3
55–59 years	2	2	5
60–64 years	0	1	1
65 years and over	1	1	0
Technical assistance and consulting	367	379	366
Under 35 years	41	49	52
35–39 years	46	42	35
40–44 years	66	67	62
45–49 years	52	62	70
50–54 years	53	53	42
55–59 years	59	59	53
60–64 years	33	28	32
65 years and over	17	19	20

TABLE 13. Black federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
Test and evaluation	416	436	431
Under 35 years	105	111	105
35–39 years	60	59	50
40–44 years	87	90	89
45–49 years	81	81	88
50–54 years	35	42	45
55–59 years	17	24	27
60–64 years	22	20	17
65 years and over	9	9	10
Other, not elsewhere classified	1,373	1,445	1,478
Under 35 years	406	401	413
35–39 years	230	245	233
40–44 years	254	275	286
45–49 years	216	234	252
50–54 years	129	142	158
55–59 years	80	89	84
60–64 years	37	34	35
65 years and over	21	25	17
Activity unknown	4,505	4,835	5,048
Under 35 years	715	819	839
35–39 years	672	596	585
40–44 years	1,041	1,126	1,126
45–49 years	849	935	1,021
50–54 years	697	747	787
55–59 years	353	415	476
60–64 years	129	132	149
65 years and over	49	65	65

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 14. Hispanic federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
All activities	8,058	8,456	8,712
Under 35 years	1,574	1,742	1,853
35–39 years	1,264	1,192	1,103
40–44 years	1,719	1,726	1,682
45–49 years	1,496	1,644	1,732
50–54 years	997	1,083	1,183
55–59 years	623	662	716
60–64 years	270	291	310
65 years and over	115	116	133
Clinical practice, counseling, and ancillary medical services	218	235	260
Under 35 years	44	51	58
35–39 years	26	34	37
40–44 years	25	30	31
45–49 years	40	31	31
50–54 years	37	40	44
55–59 years	32	31	38
60–64 years	9	14	16
65 years and over	5	4	5
Construction	213	205	214
Under 35 years	22	24	20
35–39 years	34	26	24
40–44 years	42	27	30
45–49 years	35	47	51
50–54 years	25	30	35
55–59 years	33	30	28
60–64 years	15	16	21
65 years and over	7	5	5
Data collection, processing, and analysis	435	441	446
Under 35 years	99	108	121
35–39 years	56	61	48
40–44 years	95	89	79
45–49 years	72	72	74
50–54 years	53	60	61
55–59 years	33	29	33
60–64 years	20	18	25
65 years and over	7	4	5
Design	406	430	424
Under 35 years	68	81	73
35–39 years	58	54	44
40–44 years	82	89	90
45–49 years	75	79	74
50–54 years	60	57	71
55–59 years	35	37	38
60–64 years	15	20	19
65 years and over	13	13	15
Development	847	872	890
Under 35 years	144	171	183
35–39 years	140	105	92
40–44 years	238	246	220
45–49 years	154	175	199
50–54 years	88	93	106
55–59 years	52	47	51
60–64 years	22	23	28
65 years and over	9	12	11
Installation, operations, and maintenance	419	401	392
Under 35 years	105	101	91

TABLE 14. Hispanic federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
35–39 years	72	63	56
40–44 years	76	73	72
45–49 years	80	78	82
50–54 years	43	46	47
55–59 years	29	27	34
60–64 years	10	8	5
65 years and over	4	5	5
Management	384	417	434
Under 35 years	12	13	12
35–39 years	49	47	53
40–44 years	98	108	98
45–49 years	93	104	113
50–54 years	63	61	79
55–59 years	48	54	47
60–64 years	15	27	26
65 years and over	6	3	6
Natural resources operations	546	560	578
Under 35 years	116	139	144
35–39 years	81	82	81
40–44 years	99	88	88
45–49 years	103	97	99
50–54 years	102	105	98
55–59 years	36	42	54
60–64 years	9	7	14
65 years and over	0	0	0
Planning	141	149	156
Under 35 years	23	22	27
35–39 years	16	16	17
40–44 years	26	23	28
45–49 years	38	40	37
50–54 years	19	29	23
55–59 years	14	14	20
60–64 years	3	2	1
65 years and over	2	3	3
Production	89	88	92
Under 35 years	6	6	16
35–39 years	11	5	5
40–44 years	29	25	24
45–49 years	26	29	25
50–54 years	7	13	12
55–59 years	6	8	5
60–64 years	3	1	4
65 years and over	1	1	1
Regulatory enforcement and licensing	312	327	325
Under 35 years	100	106	96
35–39 years	55	53	48
40–44 years	55	52	51
45–49 years	36	47	53
50–54 years	31	33	34
55–59 years	16	17	23
60–64 years	13	11	10
65 years and over	6	8	10
Research	516	551	563
Under 35 years	90	105	107
35–39 years	76	74	66
40–44 years	124	123	110

TABLE 14. Hispanic federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
45–49 years	101	115	134
50–54 years	54	57	65
55–59 years	33	38	42
60–64 years	27	27	24
65 years and over	11	12	15
Research contract and grant administration	25	26	27
Under 35 years	4	3	1
35–39 years	4	2	2
40–44 years	4	4	4
45–49 years	2	4	6
50–54 years	4	4	4
55–59 years	4	6	6
60–64 years	3	2	3
65 years and over	0	1	1
Scientific and technical information	180	184	197
Under 35 years	43	43	54
35–39 years	27	29	26
40–44 years	34	30	31
45–49 years	33	31	35
50–54 years	22	31	25
55–59 years	13	14	17
60–64 years	6	4	7
65 years and over	2	2	2
Standards and specifications	42	46	50
Under 35 years	7	11	10
35–39 years	8	8	9
40–44 years	9	6	4
45–49 years	9	12	11
50–54 years	4	5	10
55–59 years	3	3	5
60–64 years	2	1	1
65 years and over	0	0	0
Teaching and training	11	10	10
Under 35 years	2	2	1
35–39 years	0	2	2
40–44 years	1	0	1
45–49 years	1	0	1
50–54 years	4	2	2
55–59 years	1	2	2
60–64 years	1	1	1
65 years and over	1	1	0
Technical assistance and consulting	215	221	212
Under 35 years	21	27	27
35–39 years	28	30	26
40–44 years	42	34	40
45–49 years	45	49	42
50–54 years	27	29	33
55–59 years	29	26	20
60–64 years	15	17	14
65 years and over	8	9	10
Test and evaluation	448	482	484
Under 35 years	89	110	124
35–39 years	85	80	62
40–44 years	112	112	101
45–49 years	77	83	89
50–54 years	51	60	65

TABLE 14. Hispanic federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
55–59 years	21	24	32
60–64 years	7	7	6
65 years and over	6	6	5
Other, not elsewhere classified	656	712	774
Under 35 years	165	165	191
35–39 years	125	120	127
40–44 years	132	132	144
45–49 years	116	158	154
50–54 years	59	68	78
55–59 years	37	38	43
60–64 years	20	29	29
65 years and over	2	2	8
Activity unknown	1,955	2,099	2,184
Under 35 years	414	454	497
35–39 years	313	301	278
40–44 years	396	435	436
45–49 years	360	393	422
50–54 years	244	260	291
55–59 years	148	175	178
60–64 years	55	56	56
65 years and over	25	25	26

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 15. White federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
All activities	166,256	168,452	167,293
Under 35 years	22,653	23,915	23,606
35–39 years	19,062	17,828	16,606
40–44 years	29,311	28,895	27,328
45–49 years	29,071	29,986	30,720
50–54 years	29,157	29,388	29,683
55–59 years	22,581	23,257	23,760
60–64 years	10,082	10,629	10,970
65 years and over	4,339	4,554	4,620
Clinical practice, counseling, and ancillary medical services	3,955	4,027	4,237
Under 35 years	619	625	654
35–39 years	341	359	427
40–44 years	446	445	442
45–49 years	613	585	580
50–54 years	735	738	769
55–59 years	755	785	785
60–64 years	333	373	447
65 years and over	113	117	133
Construction	3,070	3,111	3,144
Under 35 years	331	330	311
35–39 years	297	281	264
40–44 years	562	504	465
45–49 years	607	676	653
50–54 years	576	609	614
55–59 years	437	449	523
60–64 years	170	173	224
65 years and over	90	89	90
Data collection, processing, and analysis	11,778	11,758	11,696
Under 35 years	2,442	2,467	2,428
35–39 years	1,570	1,586	1,525
40–44 years	1,784	1,729	1,721
45–49 years	1,861	1,805	1,773
50–54 years	1,981	1,959	1,967
55–59 years	1,349	1,375	1,418
60–64 years	582	624	639
65 years and over	209	213	225
Design	8,107	7,988	7,743
Under 35 years	1,282	1,345	1,270
35–39 years	952	823	716
40–44 years	1,547	1,444	1,297
45–49 years	1,472	1,518	1,539
50–54 years	1,319	1,268	1,285
55–59 years	998	1,039	1,056
60–64 years	359	374	388
65 years and over	178	177	192
Development	15,805	15,894	15,904
Under 35 years	2,259	2,518	2,628
35–39 years	2,268	1,910	1,598
40–44 years	3,633	3,603	3,377
45–49 years	2,705	2,910	3,286
50–54 years	2,001	2,025	2,176
55–59 years	1,589	1,574	1,528
60–64 years	896	865	855
65 years and over	454	489	456

TABLE 15. White federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
Installation, operations, and maintenance	6,183	6,066	5,952
Under 35 years	856	881	891
35–39 years	776	670	562
40–44 years	1,366	1,268	1,136
45–49 years	1,104	1,189	1,282
50–54 years	910	894	916
55–59 years	712	710	729
60–64 years	338	329	309
65 years and over	121	125	127
Management	8,243	8,353	8,259
Under 35 years	259	289	283
35–39 years	597	566	505
40–44 years	1,432	1,477	1,403
45–49 years	1,427	1,537	1,631
50–54 years	1,848	1,805	1,795
55–59 years	1,611	1,599	1,589
60–64 years	787	798	761
65 years and over	282	282	292
Natural resources operations	14,360	14,709	14,619
Under 35 years	2,169	2,328	2,309
35–39 years	1,519	1,516	1,542
40–44 years	2,213	2,145	2,023
45–49 years	2,994	2,899	2,739
50–54 years	3,187	3,262	3,308
55–59 years	1,761	1,963	2,070
60–64 years	433	503	530
65 years and over	84	93	98
Planning	3,950	3,896	3,758
Under 35 years	381	370	371
35–39 years	353	359	323
40–44 years	568	527	497
45–49 years	765	765	720
50–54 years	823	783	771
55–59 years	668	667	652
60–64 years	289	316	314
65 years and over	103	109	110
Production	1,862	1,742	1,639
Under 35 years	116	141	149
35–39 years	176	126	100
40–44 years	418	354	304
45–49 years	319	341	353
50–54 years	314	281	257
55–59 years	285	267	249
60–64 years	128	122	127
65 years and over	106	110	100
Regulatory enforcement and licensing	4,671	4,746	4,783
Under 35 years	549	584	580
35–39 years	496	456	430
40–44 years	758	762	703
45–49 years	823	814	865
50–54 years	824	849	829
55–59 years	694	732	796
60–64 years	348	364	383
65 years and over	179	185	197

TABLE 15. White federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
Research	16,608	16,431	16,101
Under 35 years	1,801	1,797	1,707
35–39 years	1,773	1,676	1,616
40–44 years	2,490	2,353	2,194
45–49 years	2,921	2,811	2,778
50–54 years	2,922	2,980	2,926
55–59 years	2,470	2,426	2,485
60–64 years	1,446	1,553	1,543
65 years and over	785	835	852
Research contract and grant administration	928	915	880
Under 35 years	77	76	69
35–39 years	63	69	67
40–44 years	85	74	75
45–49 years	124	131	123
50–54 years	186	173	151
55–59 years	164	174	177
60–64 years	160	138	137
65 years and over	69	80	81
Scientific and technical information	3,500	3,559	3,687
Under 35 years	534	551	612
35–39 years	416	394	373
40–44 years	624	614	584
45–49 years	632	648	658
50–54 years	597	630	674
55–59 years	410	439	470
60–64 years	195	204	229
65 years and over	92	79	87
Standards and specifications	929	996	979
Under 35 years	75	87	84
35–39 years	111	96	80
40–44 years	191	201	166
45–49 years	158	174	195
50–54 years	162	166	175
55–59 years	141	161	174
60–64 years	62	75	71
65 years and over	29	36	34
Teaching and training	294	327	345
Under 35 years	12	10	16
35–39 years	14	22	23
40–44 years	43	41	40
45–49 years	51	60	58
50–54 years	56	68	80
55–59 years	69	66	68
60–64 years	34	41	40
65 years and over	15	19	20
Technical assistance and consulting	3,738	3,823	3,639
Under 35 years	305	352	326
35–39 years	344	328	291
40–44 years	574	563	518
45–49 years	637	680	630
50–54 years	771	752	750
55–59 years	652	665	648
60–64 years	304	326	322
65 years and over	151	157	154

TABLE 15. White federal scientists and engineers, by primary work activity and age: 2003–05

Primary work activity and age	2003	2004	2005
Test and evaluation	5,835	6,011	5,938
Under 35 years	1,078	1,167	1,168
35–39 years	870	755	641
40–44 years	1,286	1,331	1,265
45–49 years	893	1,007	1,111
50–54 years	756	767	755
55–59 years	592	616	636
60–64 years	250	257	255
65 years and over	110	111	107
Other, not elsewhere classified	11,021	11,820	11,922
Under 35 years	2,069	2,276	2,151
35–39 years	1,468	1,455	1,430
40–44 years	2,016	2,119	2,035
45–49 years	1,789	1,959	2,052
50–54 years	1,555	1,680	1,803
55–59 years	1,266	1,389	1,428
60–64 years	597	646	712
65 years and over	261	296	311
Activity unknown	41,419	42,280	42,068
Under 35 years	5,439	5,721	5,599
35–39 years	4,658	4,381	4,093
40–44 years	7,275	7,341	7,083
45–49 years	7,176	7,477	7,694
50–54 years	7,634	7,699	7,682
55–59 years	5,958	6,161	6,279
60–64 years	2,371	2,548	2,684
65 years and over	908	952	954

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 16. Federal scientists and engineers, by race/ethnicity and age: 2003–05

Race/ethnicity and age	2003	2004	2005
All races/ethnicities	206,620	209,994	209,747
Under 35 years	29,924	31,591	31,504
35–39 years	24,829	23,207	21,629
40–44 years	37,435	37,130	35,428
45–49 years	36,058	37,442	38,687
50–54 years	34,520	34,978	35,554
55–59 years	26,273	27,163	27,884
60–64 years	12,165	12,767	13,183
65 years and over	5,416	5,716	5,878
American Indian/Alaska Native	1,862	1,886	1,925
Under 35 years	277	271	274
35–39 years	218	229	251
40–44 years	326	310	305
45–49 years	343	351	360
50–54 years	330	336	344
55–59 years	226	240	246
60–64 years	112	114	110
65 years and over	30	35	35
Asian/Pacific Islander	17,248	17,687	18,049
Under 35 years	2,827	2,957	3,029
35–39 years	2,355	2,200	2,000
40–44 years	3,286	3,383	3,404
45–49 years	2,796	2,930	3,153
50–54 years	2,269	2,327	2,424
55–59 years	1,756	1,845	1,882
60–64 years	1,224	1,256	1,301
65 years and over	735	789	856
Black	12,635	13,168	13,449
Under 35 years	2,440	2,648	2,695
35–39 years	1,850	1,706	1,615
40–44 years	2,691	2,745	2,648
45–49 years	2,270	2,473	2,668
50–54 years	1,701	1,796	1,877
55–59 years	1,039	1,123	1,240
60–64 years	456	460	476
65 years and over	188	217	230
Hispanic	8,058	8,456	8,712
Under 35 years	1,574	1,742	1,853
35–39 years	1,264	1,192	1,103
40–44 years	1,719	1,726	1,682
45–49 years	1,496	1,644	1,732
50–54 years	997	1,083	1,183
55–59 years	623	662	716
60–64 years	270	291	310
65 years and over	115	116	133
White	166,256	168,452	167,293
Under 35 years	22,653	23,915	23,606
35–39 years	19,062	17,828	16,606
40–44 years	29,311	28,895	27,328
45–49 years	29,071	29,986	30,720
50–54 years	29,157	29,388	29,683
55–59 years	22,581	23,257	23,760
60–64 years	10,082	10,629	10,970
65 years and over	4,339	4,554	4,620

TABLE 16. Federal scientists and engineers, by race/ethnicity and age: 2003–05

Race/ethnicity and age	2003	2004	2005
All other or race/ethnicity unknown	561	345	319
Under 35 years	153	58	47
35–39 years	80	52	54
40–44 years	102	71	61
45–49 years	82	58	54
50–54 years	66	48	43
55–59 years	48	36	40
60–64 years	21	17	16
65 years and over	9	5	4

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

TABLE 17. Federal scientists and engineers, by geographical division and state: 2003–05

Division and state	2003	2004	2005
United States	206,620	209,994	209,747
New England	7,225	7,258	7,178
Connecticut	449	463	468
Maine	1,023	1,026	1,025
Massachusetts	3,009	2,989	2,918
New Hampshire	353	377	385
Rhode Island	2,199	2,199	2,174
Vermont	192	204	208
Middle Atlantic	13,746	13,900	13,945
New Jersey	5,442	5,531	5,577
New York	3,327	3,326	3,378
Pennsylvania	4,977	5,043	4,990
East North Central	15,225	15,392	15,279
Illinois	3,835	3,857	3,863
Indiana	1,779	1,793	1,784
Michigan	2,113	2,200	2,146
Ohio	6,545	6,572	6,516
Wisconsin	953	970	970
West North Central	8,169	8,230	8,202
Iowa	636	642	673
Kansas	1,285	1,301	1,327
Minnesota	1,116	1,104	1,076
Missouri	2,549	2,537	2,486
Nebraska	1,293	1,340	1,314
North Dakota	598	599	603
South Dakota	692	707	723
South Atlantic	84,925	86,435	86,591
Delaware	117	114	119
District of Columbia	19,926	20,086	20,113
Florida	7,428	7,710	7,791
Georgia	5,910	5,986	6,078
Maryland	27,553	27,978	28,049
North Carolina	3,226	3,258	3,280
South Carolina	1,770	1,856	1,880
Virginia	17,625	17,996	17,852
West Virginia	1,370	1,451	1,429
East South Central	11,205	11,489	11,331
Alabama	6,159	6,355	6,288
Kentucky	1,025	1,086	1,068
Mississippi	2,564	2,577	2,541
Tennessee	1,457	1,471	1,434
West South Central	14,116	14,523	14,712
Arkansas	983	986	1,001
Louisiana	1,903	1,946	1,880
Oklahoma	3,226	3,259	3,292
Texas	8,004	8,332	8,539
Mountain	18,207	18,546	18,590
Arizona	2,323	2,388	2,355
Colorado	5,822	5,915	5,897
Idaho	1,393	1,392	1,373
Montana	1,388	1,423	1,423
Nevada	1,056	1,035	1,024
New Mexico	3,032	3,108	3,195
Utah	2,425	2,499	2,548
Wyoming	768	786	775

TABLE 17. Federal scientists and engineers, by geographical division and state: 2003–05

Division and state	2003	2004	2005
Pacific	30,831	31,213	30,816
Alaska	1,859	1,894	1,869
California	17,351	17,549	17,331
Hawaii	2,729	2,805	2,841
Oregon	2,854	2,870	2,784
Washington	6,038	6,095	5,991
Other or unknown	2,971	3,008	3,103

SOURCE: National Science Foundation tabulations from data provided by the Office of Personnel Management and the Defense Manpower Data Center.

Appendix A. Technical Notes

Scope

This report presents data on the demographic and employment characteristics of scientists and engineers employed by the U.S. government during the years 2003 through 2005. This population consists of individuals in selected white-collar civilian occupational groups who hold at least a bachelor's degree.

Data Sources

Data for Department of Defense (DOD) agencies are from the Defense Manpower Data Center (DMDC). Data for federal agencies that are not part of the DOD are from the Central Personnel Data File (CPDF) of the Office of Personnel Management (OPM).

Agency Coverage

The CPDF does not contain information for the following federal civilian employees (these data are excluded from this report): members and employees of Congress; Architect of the Capitol; Botanic Gardens; Library of Congress; Government Accountability Office; Congressional Budget Office; John C. Stennis Center for Public Service Training and Development; Office of Compliance; U.S. Court of Appeals to Veterans Claims; Commission on Security and Cooperation in Europe; members and employees of the Judicial Branch; White House Office; Office of the Vice President; Office of Policy Development; Board of Governors of the Federal Reserve System; Panama Canal Commission; Central Intelligence Agency; National Security Agency; National Imagery and Mapping Agency; U.S. Postal Service; Postal Rate Commission; the Tennessee Valley Authority; Department of Homeland Security; and foreign nationals employed overseas.

Occupation Coverage

For this report, scientists and engineers were classified by the major and minor occupational groups used by the Scientists and Engineers Statistical Data System (SESTAT) of the National Science Foundation (NSF) and further classified by the corresponding OPM occupational series for science and engineering (S&E) positions in the federal government. Appendix B provides a crosswalk listing the SESTAT occupational groups and the corresponding OPM federal occupational series and codes for S&E occupations.

Definitions

The following lists the work activities and their definitions that OPM uses in gathering information on the work activities of federal scientists and engineers:

- Clinical practice, counseling, and ancillary medical services
- Construction
- Data collection, processing, and analysis
- Design
- Development
- Installation, operations, and maintenance
- Management
- Natural resources operations
- Planning
- Production
- Regulatory enforcement and licensing
- Research
- Research contracts and grants administration
- Scientific and technical information
- Standards and specifications
- Teaching and training
- Technical assistance and consulting
- Testing and evaluation
- Other, not elsewhere classified

Clinical practice, counseling, and ancillary medical services

The provision of direct clinical and related services to patients and clients, including

examining, testing, diagnosis, treatment, therapy, casework, counseling, disability evaluation, and related patient care services.

Construction
The original erection, repair, and improvement of structures that provide shelter for people and activities, support transportation systems, and control natural resources. The work involves surveillance and control of construction operations carried out in-house or under federal grants, contracts, or loans through the following activities:

1. Conducting site surveys.
2. Reviewing and interpreting project plans and specifications.
3. Making cost analyses and estimates.
4. Laying out and scheduling operations.
5. Investigating materials, methods, and construction problems.
6. Negotiating with utilities, contractors, and agencies involved.
7. Inspecting work in progress and completed work and final acceptance of completed work.

Data collection, processing, and analysis
The collection, processing, and analysis of general-purpose scientific data describing natural and social phenomena. General-purpose scientific data include newly gathered statistics, observations, instrument readings, measurements, specimens, and other facts obtained from such activities as statistical and field surveys, exploration, laboratory analyses, photogrammetry, and compilations of operating records for use by others. The following activities are involved:

1. Determining data needs and data processing requirements.
2. Planning, directing, and evaluating collection activities performed in-house or under contract.
3. Designing overall processing plans and systems to handle, control, operate, manipulate, reduce, store, check, and retrieve data.
4. Analyzing raw and processed data for validity and subject-matter interpretation.
5. Providing analytic services, such as chemical analyses.
6. Forecasting and projecting data conditions.
7. Summarizing and presenting data for general use.

Excluded from this category are collection and analysis of data only for R&D projects and internal operating or administrative purposes, such as policy formulation or planning.

Design
The planning, synthesis, and portrayal for purposes of fabrication or construction of structures, equipment, materials, facilities, devices, and processes that will perform useful functions or be suitable for certain duties. The work involves the following activities:

1. Investigating, analyzing, and determining needs and design considerations.
2. Planning, synthesizing, and proportioning the structure of mechanisms so that the result is achieved with safety and economy.
3. Preparing design criteria, detailed designs, specifications, cost estimates, and operating instructions.
4. Reviewing and evaluating design proposals and designs prepared by others including the management of architectural and engineering contracts. For present purposes, design in an R&D organization is the application of the known state of the art in the form of standard guidelines and references to prepare the detailed working plans and data required for fabrication, assembly, and production.

Development
Systematic application of scientific knowledge directed toward the creation of new or

substantially improved equipment, materials, instrumentation, devices, systems, mathematical models, processes, techniques, and procedures that will perform useful functions or be suitable for particular duties. The work involves the following activities:

1. Establishing requirements for technical objectives and characteristics.
2. Devising and evaluating concepts for design approaches, criteria, parameters, characteristics, and interrelationships.
3. Experimenting, investigating, and testing to produce new data, mathematical models, methods of testing concepts; formulating design criteria; and measuring and predicting natural and social phenomena and performance.
4. Designing and developing prototypes, breadboards, and engineering models, including the direction of their fabrication as required.
5. Developing standards and test plans to assure reliability.
6. Managing specific developments being executed in-house or under contract.

Like research, development advances the state of the art but is further characterized by the creation of specific end-items in the form of equipment or equipment systems (hardware development) and/or methodologies, mathematical models, procedures, and techniques (software development).

Installations, operations, and maintenance
The installation, assembly, integration, and assurance of the proper technical operation and functioning of systems, facilities, machinery, and equipment. The work involves the following activities:

1. Analyzing operating and environmental conditions in order to provide design inputs and feedbacks and modifying designs as necessary to adapt them to actual environments.
2. Developing and determining logistic requirements, documentation, technical plans, procedures, controls, and instructions.
3. Equipping, supplying, and commissioning facilities.
4. Analyzing performance and cost data and developing actual performance and cost-data requirements.
5. Integrating equipment installation and operating schedules.
6. Managing onsite an operating facility, such as a power plant, test range, mission control center, irrigation station, data acquisition station, or flight control station.
7. Managing installation, operations, or maintenance contracts.

Management
The direction and control of S&E programs in any one or combination of functions in a line or staff capacity with responsibilities that have a direct and substantial effect on the organizations and programs managed. The work involves decisions, actions, and recommendations that establish the basic content and character of the programs directed in terms of program objectives and priorities, program initiation and content, funding, and allocation of organizational resources.

This category is not intended to cover those primarily engaged in the supervision or monitoring of work carried out through contracts and grants or in contracts and grants administration. Such positions are coded to the appropriate function.

Natural resources operations
The development and utilization of federally owned lands and natural resources for the purposes of bringing current use into balance with natural processes of renewal to assure sustained yields to meet present and future public needs. Natural resources include land, air, and water, and their related products or uses, such as soil, minerals, timber, forage, wildlife, power, and recreation. The work involves implementing programs and projects to inventory, classify, utilize, improve, conserve, regulate, protect, sell, lease, exchange, or market natural resources. Resource operations as defined here are concerned with managing and conserving the land and resources in specified geographic areas.

Planning
The study and projection of present and future needs and the formulation of alternative policies and ways of meeting these needs for the utilization of land; natural, social, industrial, material, and manpower resources; physical facilities; and social and economic services and programs. The work involves the following activities:

1. Gathering, compiling, analyzing, and evaluating data.
2. Projecting needs and establishing goals.
3. Developing single or alternative plans, policies, programs, and recommendations and measures of their economic, social, and political costs, benefits, and feasibility.
4. Reevaluating progress to assure that objectives are realized in putting the plans into effect.

This category includes physical, economic, and social planning for land population centers and mission, policy, and program planning.

Production
The fabrication and manufacture of structures, equipment, materials, machines, and devices. The work involves surveillance and control of production operations carried out in-house or under contract through the following activities:

1. Planning, directing, controlling, inspecting, and evaluating production processes, equipment, and facilities.
2. Refining designs to adapt them to production facilities and processes.
3. Devising, applying, and monitoring procedures to measure and assure quality.

Regulatory enforcement and licensing
The application and enforcement of laws, rules, regulations, orders, and governmental agreements through inspection, investigation, surveillance, licensing, certification, and similar activities. The work includes activities such as the following:

1. Licensing power plants and radio stations.
2. Enforcing plant- or animal-disease eradication programs.
3. Examining applications for patents.
4. Inspecting operations for compliance with requirements.
5. Approving utility rates and services.
6. Investigating aircraft accidents.
7. Allocating radio frequencies.
8. Determining compliance with engineering aspects of federal tax laws.

Research
Systematic, critical, intensive investigation directed toward the development of new or fuller scientific knowledge of the subject studied. It may be with or without reference to a specific application. The work involves theoretical, taxonomic, and experimental investigations or simulation of experiments and conditions for several purposes. The following list identifies these activities:

1. Determining the nature, magnitude, and interrelationships of natural and social phenomena and processes.
2. Creating and developing theoretical or experimental means of investigating such phenomena or processes.
3. Developing the principles, criteria, methods, and a body of data of general applicability for use by others. Excluded from this research category is work concerned primarily with the administration and monitoring of research contracts and research grants.

Research contract and grant administration
The administration and monitoring of research contracts and research grants.

Scientific and technical information
Processing and disseminating published and unpublished technical documents and information on work to facilitate their use. The work involves developing and implementing information systems through numerous activities:

1. Providing for the selection, acquisition, compilation, exchange, and storage of scientific and technical information.
2. Cataloging, abstracting, and indexing information for retrieval and dissemination.
3. Providing reference, literature search, and bibliographic services for information users.
4. Interpreting, evaluating, and briefing on the significance and relevance of information.
5. Disseminating information through briefings, technical publications, and other communications media.
6. Classifying and declassifying technical information where use must be controlled in the national interest.

Standards and specifications
The preparation and determination of mandatory and/or voluntary standards including rules, regulations, and codes. Some of the purposes for which these standards are developed include the following:

1. Drafting government codes and regulations.
2. Assuring the acceptability, quality, and/or standardization of products, materials, and parts as required for design, production, purchasing, logistics, and documentation. The work involves the developing of performance criteria, test and inspection methods, and data for the application of the standards to technological products and services.

Teaching and training
The teaching of scientific and technical subjects; the education and training of scientific and technical personnel in-house and through programs consisting of fellowships, traineeships, and training grants; and the development of curriculums, training materials, and aids.

Technical assistance and consulting
The provision of scientific and technical expert assistance, consultation, and advice to other scientific personnel; foreign governments; government agencies at the federal, state, or local level; private industry; organized groups; and individuals. The work involves advising and promoting application of the results of research and specialized program knowledge.

Testing and evaluation
Testing of equipment, materials, devices, components, systems, and methodologies under controlled conditions, and the systematic evaluation of test data to determine the degree of compliance of the test item with predetermined criteria and requirements. This work is characterized by the development and application of test plans to be carried out in-house or under contract or grant, utilizing one or more of the following kinds of tests: physical measurement techniques; controlled laboratory, shop, and field (demonstration) trials; and simulated environmental techniques. Activities included in this category are as follows:

1. Development testing to determine the suitability of the test item for use in its environment.
2. Production and postproduction testing to determine operational readiness.
3. Testing in regulatory programs to determine compliance with laws, regulations, and standards.
4. Testing in the social sciences, using demonstration or experimental and control groups to determine the effectiveness of new methodologies or practices.

Other, not elsewhere classified
This category is to be used for the following positions:

1. Those with highly specialized activities that are not covered in any of the other categories.

2. Those of such generalized nature that a primary function cannot be identified.
3. Trainee positions without functional assignments.

Limitations of the Data

Federal white-collar employees were classified as scientists and engineers by examining the occupation definitions of federal occupational groups and series and determining whether those descriptions meet NSF criteria. General job series rather than individual job descriptions were examined and categorized; employees within these series or groups are not necessarily working as scientists and engineers or doing S&E work. Conversely, there are some occupations that have not been classified as S&E occupations. For example, patent examiners have not been included in S&E occupations, even though some of the employees within this occupation are trained as scientists and engineers. In prior years, data for all agencies included in this report were obtained from a single source, the CPDF; because data were obtained from two sources for this report (the DMDC and the CPDF), data may not be strictly comparable to that published in previous *Federal Scientists and Engineers* reports.

Data Quality and Availability

For further information on data quality, survey methodology, and error analyses on the data provided to NSF by OPM, refer to FedScope at http://www.fedscope.opm.gov/datadefn /acpdf.asp.

The OPM website on federal civilian workforce statistics can be accessed at http://www.opm.gov/Statistics_Information_Instructions/. The DMDC website can be accessed at http://www.dmdc.osd.mil/. NSF data on federal scientists and engineers are available at http://www.nsf.gov/statistics/fedworkforce/.

Appendix B. Crosswalk of National Science Foundation (NSF) Major and Minor Occupational Groups and Office of Personnel Management (OPM) Occupational Series

NSF major and minor occupational group	OPM occupational series and code
Computer and mathematical scientist	
Computer/ information scientist	334 Computer specialists
	1550 Computer scientists
	1670 Equipment specialists
	2210 Information technology management positions
Mathematical scientist	1515 Operations research analysts
	1520 Mathematicians
	1529 Mathematical statisticians
	1530 Statisticians
	1541 Cryptography analysts
Life scientist	
Agricultural/food scientist	28 Environmental protection specialists
	406 Agricultural extension specialists
	437 Horticulturalists
	454 Range conservationists
	457 Soil conservationists
	470 Soil scientists
	471 Agronomists
	487 Animal scientists
Biological scientist	401 Biological scientists, general
	403 Microbiologists
	405 Pharmacologists
	408 Ecologists
	410 Zoologists
	413 Physiologists
	414 Entomologists
	415 Toxicologists
	430 Botanists
	434 Plant pathologists
	435 Plant physiologists
	440 Geneticists
	482 Fishery biologists
	486 Wildlife biologists
Physical scientist	
Chemist, except biochemist	1320 Chemists
Earth/atmospheric/ocean scientist	1310 Physicists
	1313 Geophysicists
	1315 Hydrologists
	1330 Astronomers and space scientists
	1340 Meteorologists
	1350 Geologists

	1360 Oceanographers
	1372 Geodesists
Other physical scientist	1301 Physical scientists, general
	1306 Health physicists
Social scientist	110 Economists
	135 Foreign agricultural affairs analysts
	1140 Trade specialists
	1146 Agricultural market specialists
	1147 Agricultural market analysts
	2110 Transportation industry analysts
Political scientist	130 Foreign affairs analysts
	131 International relations specialists
Psychologist	180 Psychologists
Sociologist/anthropologist	184 Sociologists
	190 General anthropologists
Other social scientist	101 Social scientists, general
	106 Unemployment insurance specialists
	132 Intelligence specialists
	136 International cooperation specialists
	140 Manpower research analysts
	150 Geographers
	160 Civil rights analysts
	193 Archeologists
	1730 Education research analysts
Engineer	
Aerospace engineer	861 Aerospace engineers
Chemical engineer	893 Chemical engineers
Civil engineer	810 Civil engineers
Electrical/electronics/computer engineer	850 Electrical engineers
	854 Computer engineers
	855 Electronics engineers
Industrial engineer	803 Safety engineers
	804 Fire prevention engineers
	896 Industrial engineers
Mechanical engineer	830 Mechanical engineers
Other engineer	801 Engineers, general
	806 Materials engineers
	819 Environmental engineers
	840 Nuclear engineers
	858 Biomedical engineers
	871 Naval architects
	880 Mining engineers
	881 Petroleum engineers
	890 Agricultural engineers
	892 Ceramic engineers
	894 welding engineers
	1321 Metallurgists

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