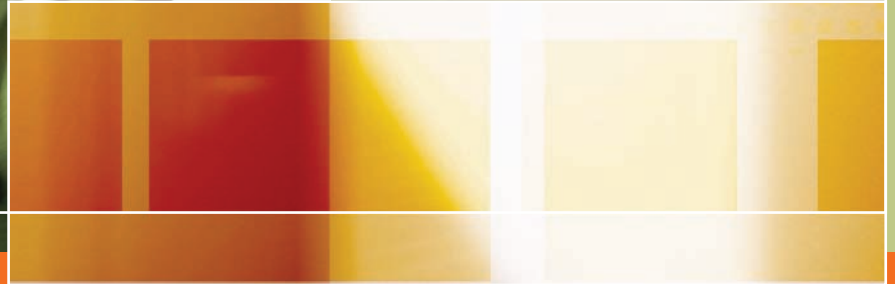
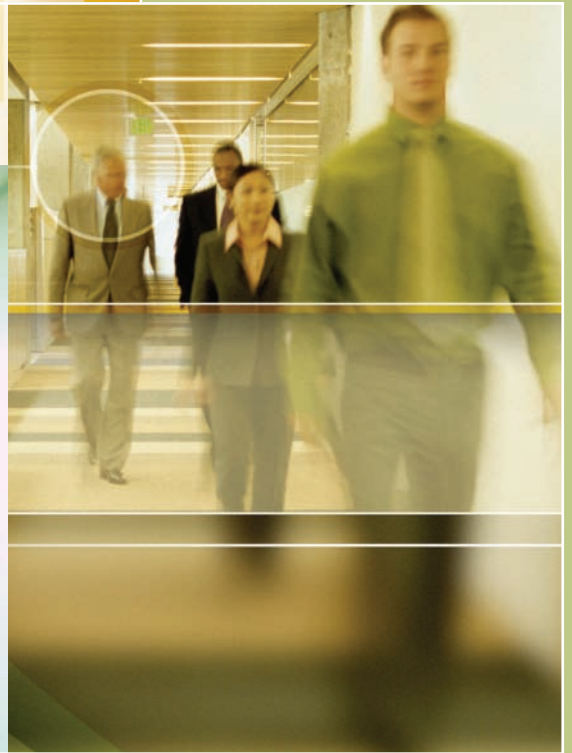
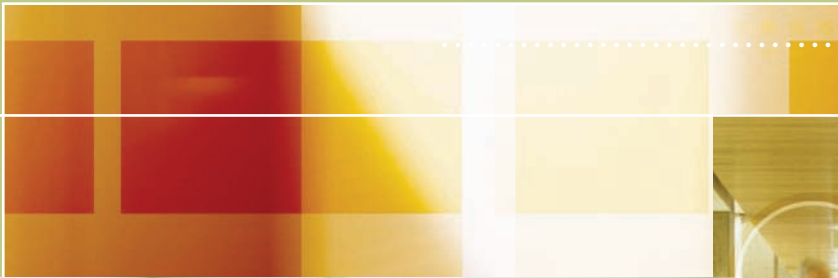


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Occupational Scales Update 2012

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Updating the *Strong* Occupational Scales

In order to maintain the relevance and utility of the *Strong Interest Inventory*[®] (*Strong*) assessment, the instrument is periodically revised to reflect changes in the occupational world and in society. While the *Strong* has been in use since 1927, the scores received by individuals taking the assessment compare their interests with those of people who are working in occupations relevant to today's workforce. As such, the *Strong* remains steadfast in measuring contemporary career interests.

In 2004, the content of the *Strong* assessment was revised, which resulted in changes to all four types of *Strong* scales—General Occupational Themes, Basic Interest Scales, Occupational Scales, and Personal Style Scales—as well as to the administrative indexes, generated from the instrument. Chapters 1–7 of the *Strong Interest Inventory*[®] *Manual* (Donnay, Morris, Schaubhut, & Thompson, 2005) discuss the 2004 revision process and the resulting changes in the *Strong* measures. Soon after the publication of the 2004 *Strong*, efforts began on the next update to the assessment. This update focused solely on the Occupational Scales (OSs); the goal was to update the OSs to keep them as current as possible. New scales were added, a number of older scales were removed, various scales were updated by developing an OS from a new sample, and

in other cases samples were bolstered with additional members of the occupation. This supplement describes the overall update of the Occupational Scales and provides information surrounding the new set of 260 OSs (130 female scales and 130 male scales) that are now integrated into the *Strong* family of reports. The data collection process and construction, characteristics, reliability, and validity of the scales are also discussed. Career professionals may refer to both the manual and this supplement as they use the *Strong Interest Inventory* assessment with clients.

It should be noted that no changes were made to the instrument itself with this update, including the item content, response options, and interpretation of results. Additionally, the General Occupational Themes, Basic Interest Scales, Personal Style Scales, and administrative indexes all remain the same. Only the Occupational Scales have been affected by this update.

Data Collection Process

As in prior versions of the *Strong*, data for the current OS update were collected from the population of employed adults in the United States. Within this population, a number of OSs were initially targeted (e.g., OSs with samples obtained for the 1994 revision or earlier). New occupations that were not included in the 2004 OS list were targeted as well. Several of these

occupations were based on popular press articles and online reports featuring “best jobs” and “hot career fields,” such as those found in *U.S. News and World Report*, *Fast Company*, the Bureau of Labor Statistics, and *CNN Money*.

As data collection has become more challenging in these times of increased security protecting personal information, efforts to collect data for the current OSs also relied on the following methods:

- Working with market research companies and mailing list providers to target individuals employed in specific occupations
- Requesting the participation of alumni in targeted occupations through career counseling departments or alumni associations from various colleges and universities
- Requesting the participation of members affiliated with associations and organizations representative of targeted occupations
- Placing advertisements on Internet search engines inviting people to take the *Strong*
- Utilizing data made available through CPP’s commercial administration platform, the SkillsOne® Web site

In return for their participation, those individuals obtained through membership associations and Internet search engines were given personalized career reports highlighting their general interest patterns and occupations related to their interests. Participants obtained through career counseling departments or alumni associations were also given the personalized career report, and a donation from CPP was made to the school or department of which they were a member. Finally, individuals who were obtained through market research companies were given a monetary reward directly from the research firm.

Participants completed either the research form of the *Strong*—a 297-item version hosted on CPP’s research Web site—or the 291-item commercial form. The research form included six items pertaining to a participant’s preferences in the world of work in addition to the original 291 items that compose the current *Strong* assessment. Both the research and commercial forms contained a comprehensive set of demographic, or biographic, items developed to enable a description and understanding of participants.

In order for participants’ responses to be included in the construction of an OS, it was required that they meet the following criteria used in previous revisions of the *Strong*:

- They could not indicate any degree of dissatisfaction with their work.
- They must have had at least three years of experience on the job.
- They must have been at least 18 years of age.

If respondents did not meet all the criteria, they were considered ineligible and were not included in an occupational sample. For more information on these criteria, please refer to chapter 5 of the *Strong* manual (Donnay et al., 2005).

Occupational Scale Construction

Occupational Scales were constructed using the same method employed in previous versions of the *Strong* assessment. The basic procedure, as outlined in the *Strong* manual, consists of comparing responses of the members of each occupation with those of a general sample of employed adults to determine which items differentiate the two samples. Please refer to pages 114–119 of the *Strong* manual for a detailed discussion of the construction and norming of Occupational Scales.

New Occupational Scales

Applying the criteria listed above to the larger sample of participants, we were able to build and add 46 new OSs to the *Strong* instrument (see Table 1.1). Examples include Auditor, Career Counselor, and Middle School Teacher.

Updated and Revised Occupational Scales

In addition to adding new OSs to the *Strong* instrument, we also updated and revised existing scales. “Updated scales” refers to OSs that were included in the 2004 *Strong* assessment but whose samples from which they were built were completely updated with new data. As these scales were built from entirely new occupational samples, different items and scoring weights were used in computing the updated scales. Thus, these OSs have updated scoring and may have

Table 1.1 • New Occupational Scales Added

New Scale	Gender
Arts/Entertainment Manager	Female
Arts/Entertainment Manager	Male
Auditor	Female
Auditor	Male
Bartender	Female
Bartender	Male
Business/Finance Supervisor	Female
Business/Finance Supervisor	Male
Career Counselor	Female
Career Counselor	Male
Computer Programmer	Female
Computer Programmer	Male
Computer/Mathematics Manager	Female
Computer/Mathematics Manager	Male
Customer Service Representative	Female
Customer Service Representative	Male
Human Resources Specialist	Female
Human Resources Specialist	Male
Instructional Coordinator	Female
Instructional Coordinator	Male
Loan Officer/Counselor	Female
Loan Officer/Counselor	Male
Management Analyst	Female
Management Analyst	Male
Mental Health Counselor	Female
Mental Health Counselor	Male
Middle School Teacher	Female
Middle School Teacher	Male
Personal Financial Advisor	Female
Personal Financial Advisor	Male
Religious/Spiritual Leader	Female
Religious/Spiritual Leader	Male
Secondary School Teacher	Female
Secondary School Teacher	Male
Securities Sales Agent	Female
Securities Sales Agent	Male
Top Executive, Business/Finance	Female
Top Executive, Business/Finance	Male
Training & Development Specialist	Female
Training & Development Specialist	Male
University Administrator	Female
University Administrator	Male
University Faculty Member	Female
University Faculty Member	Male
Wholesale Sales Representative	Female
Wholesale Sales Representative	Male

Table 1.2 • Occupational Scales Updated

Updated Scale	Gender
Accountant	Female
Accountant	Male
Attorney	Female
Attorney	Male
Community Service Director	Male
Computer & IS Manager	Male
Computer Systems Analyst	Male
Elementary School Teacher	Female
Elementary School Teacher	Male
Engineer	Female
Engineer	Male
Financial Analyst	Male
Financial Manager	Female
Financial Manager	Male
Graphic Designer	Female
Human Resources Manager	Female
Human Resources Manager	Male
Marketing Manager	Female
Marketing Manager	Male
Operations Manager	Female
Operations Manager	Male
Psychologist	Female
Psychologist	Male
Realtor	Female
Registered Nurse	Female
Sales Manager	Female
Sales Manager	Male
Social Worker	Female
Social Worker	Male
Software Developer	Female
Software Developer	Male
Special Education Teacher	Female
Technical Sales Representative	Female
Technical Sales Representative	Male
Technical Support Specialist	Female
Technical Support Specialist	Male

a different Theme code as well. For details on how Theme codes are assigned to OSs, please refer to page 120 of the *Strong* manual. Table 1.2 lists the 36 OSs that have been updated.

“Revised scales” also refers to OSs that were included in the 2004 *Strong* assessment. For these scales, however, rather than completely updating the samples

Table 1.3 • Occupational Scales Revised

Revised Scale	Gender
Administrative Assistant	Female
Administrative Assistant	Male
Editor	Female
Editor	Male
Network Administrator	Female
Network Administrator	Male
Rehabilitation Counselor	Female
Rehabilitation Counselor	Male

from which they were built, we supplemented them with new data. As we were not able to gather sufficient data to completely update the scales, the addition of the new data to the existing samples was a logical alternative. Table 1.3 lists the eight OSs that were revised. Examples of revised scales include Editor and Administrative Assistant. Please note that the scoring for all scales listed in Table 1.3 has also been revised.

Removed Occupational Scales

Finally, Table 1.4 lists all scales that have been removed and are not in the current list of OSs. Scales were removed due to redundancy of an existing OS with a new scale, an outdated sample used to create the OS (and no new data to replace the sample), and so on. A total of 30 OSs were removed from the *Strong* instrument. Please note that 170 of the existing *Strong* Occupational Scales were unchanged in this OS update.

Updates to the *Strong* Profiles and Reports

The *Strong* Profiles and reports were updated to reflect the new set of 260 Occupational Scales. Also, hyperlinks were added to the electronic version of each Profile and report that contains a top 10 list of occupations. This list shows the respondent the 10 Occupational Scales for his or her gender that have the highest scores. When the respondent clicks on the name of an occupation in the list, a browser window opens and the O*NET™ description of the occupation appears. O*NET is the U.S. Department of Labor's job classification database.

Table 1.4 • Occupational Scales Removed

Removed Scale	Gender	Year Data Collected
Banker	Female	1992
Banker	Male	1992
Bookkeeper	Female	1993
Bookkeeper	Male	1993
College Instructor	Female	2003
College Instructor	Male	2003
Corporate Trainer	Female	1993
Corporate Trainer	Male	1993
Foreign Language Teacher	Female	1978
Foreign Language Teacher	Male	1979
Investments Manager	Female	1982
Investments Manager	Male	1982
Licensed Practical Nurse	Female	1983
Licensed Practical Nurse	Male	1983
Minister	Female	1977
Minister	Male	1982
Physical Education Teacher	Female	1979
Physical Education Teacher	Male	1979
Retail Sales Manager	Female	1984
Retail Sales Manager	Male	1984
Retail Sales Representative	Female	2003
Retail Sales Representative	Male	2003
Social Science Teacher	Female	1983
Social Science Teacher	Male	1983
Top Executive	Female	2003
Top Executive	Male	2003
Travel Consultant	Female	1983
Travel Consultant	Male	1983
University Professor	Female	1972
University Professor	Male	1983

For OSs with more than one relevant O*NET code, the hyperlink will lead to a page displaying several occupations related to the scale, or simply the occupation from which the *Strong* sample was primarily derived. As an example, for the University Faculty Member occupation O*NET has descriptions for distinct specialties among college and university professors. The hyperlink featured on the *Strong* report leads to the O*NET page listing all postsecondary teaching occupations. Hyperlinks to O*NET data are meant to help respondents use their Occupational Scale results to launch further research and self-reflection as they evaluate possible careers.

Characteristics of the Occupational Scales

In interpreting a client's results on the Occupational Scales, a standard score of 40 or higher on a scale indicates that the client has some degree of similarity to people employed in the occupation and that the occupation is thus worth noting as an area to explore. A score of 50 on an OS is average for respondents employed in a given occupation; therefore a score of 50 or higher should command considerable attention. Clients who score low on an OS may still want to research the occupation, however. See chapter 5 of the

Strong manual (pp. 103–105) for details on explaining OS results.

Table 2.1 shows the minimum and maximum possible scores on the 260 OSs. **Please note that Table 2.1 is a replacement for Table 5.1 in the *Strong* manual.** The minimum and maximum scores were computed for the 2004 General Representative Sample (GRS). This sample includes 1,125 women and 1,125 men selected to reflect the racial and ethnic diversity of the U.S. workforce. For a demographic profile of this sample, please refer to pages 6–8 of the *Strong* manual.

Table 2.1 • Scale Characteristics, Concurrent Validities (Percent Overlap), and Minimum and Maximum Possible Standard Scores for the Occupational Scales

Occupational Scale	Gender	New, Existing, Updated, or Revised	Minimum Possible Score	Maximum Possible Score	Number of Items	Minimum % Difference	Tilton % Overlap	Cohen's <i>d</i>	Tilton's <i>Q</i>
Accountant	Female	Updated	15	72	25	16	49	1.38	1.38
	Male	Updated	6	71	38	17	51	1.33	1.33
Actuary	Female	Existing	-3	79	30	16	44	1.53	1.55
	Male	Existing	-18	74	28	16	47	1.40	1.44
Administrative Assistant	Female	Revised	18	76	25	12	67	0.86	0.86
	Male	Revised	24	78	25	19	55	1.19	1.20
Advertising Account Manager	Female	Existing	-27	68	36	19	47	1.44	1.45
	Male	Existing	-16	72	42	19	44	1.55	1.56
Architect	Female	Existing	-39	71	28	19	35	1.81	1.88
	Male	Existing	-35	76	28	16	32	1.95	1.99
Art Teacher	Female	Existing	-61	77	39	18	19	2.52	2.62
	Male	Existing	-45	74	32	26	18	2.57	2.67
Artist	Female	Existing	-27	66	39	24	36	1.80	1.83
	Male	Existing	-32	67	35	30	24	2.32	2.37
Arts/Entertainment Manager	Female	New	7	65	30	19	61	1.01	1.02
	Male	New	10	67	34	20	58	1.10	1.11
Athletic Trainer	Female	Existing	-42	79	36	20	17	2.64	2.72
	Male	Existing	-26	78	30	18	26	2.23	2.27
Attorney	Female	Updated	-13	68	41	24	35	1.84	1.87
	Male	Updated	-22	68	39	27	30	2.00	2.06
Auditor	Female	New	9	74	33	18	52	1.28	1.28
	Male	New	-2	76	39	17	52	1.28	1.30
Automobile Mechanic	Female	Existing	0	76	26	26	23	2.42	2.42
	Male	Existing	-3	70	34	26	33	1.94	1.95
Bartender	Female	New	-2	80	43	17	45	1.49	1.49
	Male	New	-22	76	39	25	32	1.94	1.97
Biologist	Female	Existing	-25	73	29	24	38	1.71	1.75
	Male	Existing	-26	69	39	16	51	1.52	1.54
Broadcast Journalist	Female	Existing	-9	68	31	20	45	1.51	1.52
	Male	Existing	-16	69	25	22	38	1.72	1.75
Business Education Teacher	Female	Existing	-8	69	30	22	33	1.94	1.95
	Male	Existing	4	74	33	20	40	1.70	1.70
Business/Finance Supervisor	Female	New	4	72	34	15	56	1.16	1.17
	Male	New	2	74	39	21	51	1.30	1.31
Buyer	Female	Existing	-7	71	32	18	40	1.66	1.68
	Male	Existing	-11	80	23	16	31	2.00	2.04
Career Counselor	Female	New	-20	67	35	23	41	1.62	1.65
	Male	New	-15	73	35	24	38	1.72	1.75
Carpenter	Female	Existing	-20	73	33	24	29	2.11	2.13
	Male	Existing	-8	84	32	16	36	1.83	1.84
Chef	Female	Existing	-30	75	20	15	42	1.58	1.61
	Male	Existing	-22	78	19	16	27	2.17	2.21
Chemist	Female	Existing	-18	72	32	20	39	1.67	1.72
	Male	Existing	-36	71	31	18	43	1.54	1.60
Chiropractor	Female	Existing	2	76	34	26	39	1.71	1.73
	Male	Existing	-7	79	41	20	35	1.86	1.87
Community Service Director	Female	Existing	-4	76	27	16	57	1.14	1.14
	Male	Updated	0	65	29	28	40	1.66	1.68
Computer & IS Manager	Female	Existing	-5	78	15	12	61	1.03	1.03
	Male	Updated	8	66	32	17	60	1.04	1.04

Table 2.1 • Scale Characteristics, Concurrent Validities (Percent Overlap), and Minimum and Maximum Possible Standard Scores for the Occupational Scales (continued)

Occupational Scale	Gender	New, Existing, Updated, or Revised	Minimum Possible Score	Maximum Possible Score	Number of Items	Minimum % Difference	Tilton % Overlap	Cohen's <i>d</i>	Tilton's <i>Q</i>
Computer Programmer	Female	New	21	69	36	23	50	1.34	1.34
	Male	New	4	72	35	19	52	1.29	1.30
Computer Scientist	Female	Existing	-5	78	40	26	28	2.15	2.19
	Male	Existing	-21	74	40	23	36	1.81	1.86
Computer Systems Analyst	Female	Existing	-6	77	12	13	57	1.16	1.16
	Male	Updated	17	67	23	16	65	0.90	0.90
Computer/Mathematics Manager	Female	New	-11	72	30	22	51	1.29	1.33
	Male	New	-1	65	31	21	53	1.24	1.25
Cosmetologist	Female	Existing	3	74	14	16	37	1.47	1.48
	Male	Existing	-1	75	24	20	35	1.86	1.86
Credit Manager	Female	Existing	17	77	16	16	61	1.01	1.02
	Male	Existing	8	74	24	16	62	0.99	1.00
Customer Service Representative	Female	New	18	77	27	15	61	1.03	1.03
	Male	New	18	75	32	19	56	1.17	1.17
Dentist	Female	Existing	-13	68	21	16	45	1.49	1.52
	Male	Existing	-16	80	28	16	43	1.55	1.57
Dietitian	Female	Existing	-18	75	18	14	47	1.44	1.45
	Male	Existing	-5	79	22	16	41	1.66	1.67
Editor	Female	Revised	-14	65	32	23	40	1.61	1.67
	Male	Revised	-12	66	33	24	37	1.75	1.80
Elected Public Official	Female	Existing	-14	69	37	16	41	1.63	1.66
	Male	Existing	-14	66	26	20	39	1.68	1.71
Electrician	Female	Existing	-9	72	26	24	29	2.11	2.11
	Male	Existing	-1	74	23	20	45	1.51	1.52
Elementary School Teacher	Female	Updated	-2	65	19	25	44	1.53	1.55
	Male	Updated	6	74	36	23	40	1.68	1.68
Emergency Medical Technician	Female	Existing	-3	84	29	16	34	1.90	1.90
	Male	Existing	-3	78	35	16	39	1.72	1.72
Engineer	Female	Updated	12	70	39	23	37	1.80	1.80
	Male	Updated	4	67	35	18	56	1.17	1.18
Engineering Technician	Female	Existing	16	70	39	25	40	1.68	1.68
	Male	Existing	-10	79	35	18	46	1.48	1.50
English Teacher	Female	Existing	-38	65	23	24	36	1.76	1.84
	Male	Existing	-25	64	24	26	29	2.02	2.10
ESL Instructor	Female	Existing	-9	62	44	25	41	1.63	1.67
	Male	Existing	-14	69	41	28	30	2.06	2.09
Facilities Manager*	Female	Existing	9	91	32	18	57	1.15	1.15
	Male	Existing	9	84	13	18	62	1.19	1.20
Farmer/Rancher	Female	Existing	7	78	35	24	35	1.86	1.86
	Male	Existing	5	63	31	31	41	1.65	1.65
Financial Analyst	Female	Existing	6	75	28	18	50	1.37	1.37
	Male	Updated	1	71	36	17	53	1.25	1.26
Financial Manager	Female	Updated	10	64	15	25	47	1.42	1.43
	Male	Updated	-2	67	20	25	43	1.54	1.57
Firefighter	Female	Existing	-9	72	45	33	19	2.60	2.63
	Male	Existing	-11	60	45	21	37	1.77	1.79
Flight Attendant	Female	Existing	6	76	24	18	54	1.24	1.24
	Male	Existing	4	77	30	18	48	1.40	1.41
Florist	Female	Existing	-2	71	14	16	41	1.61	1.64
	Male	Existing	6	77	21	16	41	1.64	1.64

*The Facilities Manager scales, formerly Housekeeping/Maintenance Manager scales, were renamed to better reflect current usage.

Table 2.1 • Scale Characteristics, Concurrent Validities (Percent Overlap), and Minimum and Maximum Possible Standard Scores for the Occupational Scales (continued)

Occupational Scale	Gender	New, Existing, Updated, or Revised	Minimum Possible Score	Maximum Possible Score	Number of Items	Minimum % Difference	Tilton % Overlap	Cohen's <i>d</i>	Tilton's <i>Q</i>
Food Service Manager	Female	Existing	8	75	23	16	50	1.35	1.35
	Male	Existing	4	67	17	16	46	1.46	1.47
Forester	Female	Existing	-4	77	20	19	50	1.35	1.37
	Male	Existing	-10	75	20	16	48	1.39	1.41
Geographer	Female	Existing	-31	73	42	29	21	2.45	2.51
	Male	Existing	-29	74	40	28	27	2.20	2.24
Geologist	Female	Existing	-19	72	30	24	35	1.81	1.86
	Male	Existing	-14	70	27	24	36	1.79	1.82
Graphic Designer	Female	Updated	-8	72	29	19	43	1.55	1.58
	Male	Existing	-19	66	26	26	30	2.07	2.09
Health Information Specialist	Female	Existing	8	82	22	15	56	1.18	1.18
	Male	Existing	10	80	18	13	61	1.02	1.02
Horticulturist	Female	Existing	-11	74	20	16	43	1.56	1.57
	Male	Existing	-8	80	26	16	47	1.42	1.43
Human Resources Manager	Female	Updated	-14	64	36	22	46	1.46	1.48
	Male	Updated	-10	67	39	25	40	1.66	1.68
Human Resources Specialist	Female	New	4	67	30	16	60	1.04	1.05
	Male	New	-5	69	34	21	46	1.46	1.48
Instructional Coordinator	Female	New	2	67	31	18	60	1.05	1.06
	Male	New	15	65	33	23	55	1.19	1.19
Interior Designer	Female	Existing	-45	71	25	24	31	1.97	2.02
	Male	Existing	-14	65	26	30	26	2.24	2.25
Landscape/Grounds Manager	Female	Existing	4	85	20	13	54	1.22	1.22
	Male	Existing	-1	80	19	16	54	1.21	1.22
Law Enforcement Officer	Female	Existing	3	77	28	18	41	1.66	1.66
	Male	Existing	-5	81	28	17	42	1.59	1.60
Librarian	Female	Existing	-10	72	22	15	60	1.04	1.05
	Male	Existing	-3	76	26	18	50	1.33	1.34
Life Insurance Agent	Female	Existing	-7	77	22	19	47	1.43	1.44
	Male	Existing	-9	76	17	20	45	1.51	1.52
Loan Officer/Counselor	Female	New	-1	76	32	17	52	1.28	1.28
	Male	New	-4	70	35	24	42	1.58	1.60
Management Analyst	Female	New	1	70	27	19	56	1.18	1.18
	Male	New	-1	70	31	18	56	1.18	1.19
Marketing Manager	Female	Updated	-17	69	35	21	44	1.54	1.56
	Male	Updated	-8	70	40	20	48	1.40	1.42
Mathematician	Female	Existing	-33	77	37	24	25	2.23	2.32
	Male	Existing	-36	70	37	26	22	2.41	2.46
Mathematics Teacher	Female	Existing	-10	77	38	16	31	2.03	2.05
	Male	Existing	-15	77	35	16	29	2.12	2.13
Medical Illustrator	Female	Existing	-56	76	37	24	24	2.25	2.34
	Male	Existing	-51	71	28	26	17	2.63	2.74
Medical Technician	Female	Existing	-5	77	28	20	39	1.73	1.74
	Male	Existing	-14	79	28	16	38	1.75	1.77
Medical Technologist	Female	Existing	-5	76	27	18	43	1.56	1.59
	Male	Existing	-4	73	33	16	43	1.56	1.58
Mental Health Counselor	Female	New	-37	65	37	22	35	1.82	1.88
	Male	New	-20	68	39	29	25	2.26	2.28
Middle School Teacher	Female	New	-9	69	25	21	42	1.60	1.62
	Male	New	1	69	30	22	42	1.59	1.61

Table 2.1 • Scale Characteristics, Concurrent Validities (Percent Overlap), and Minimum and Maximum Possible Standard Scores for the Occupational Scales (continued)

Occupational Scale	Gender	New, Existing, Updated, or Revised	Minimum Possible Score	Maximum Possible Score	Number of Items	Minimum % Difference	Tilton % Overlap	Cohen's <i>d</i>	Tilton's <i>Q</i>
Military Enlisted	Female	Existing	9	87	25	16	44	1.53	1.54
	Male	Existing	2	83	31	16	49	1.37	1.37
Military Officer	Female	Existing	18	70	12	14	45	1.50	1.50
	Male	Existing	2	75	23	16	53	1.25	1.25
Musician	Female	Existing	-16	73	32	16	44	1.53	1.54
	Male	Existing	-10	71	26	20	42	1.60	1.61
Network Administrator	Female	Revised	19	68	34	20	46	1.47	1.47
	Male	Revised	3	68	33	16	53	1.24	1.26
Nursing Home Administrator	Female	Existing	8	84	21	16	61	1.02	1.02
	Male	Existing	7	88	12	16	62	1.07	1.07
Occupational Therapist	Female	Existing	-18	77	24	17	48	1.41	1.42
	Male	Existing	-13	78	28	17	47	1.44	1.45
Operations Manager	Female	Updated	2	66	36	18	59	1.09	1.09
	Male	Updated	-4	66	36	22	52	1.27	1.29
Optician	Female	Existing	3	82	19	16	49	1.38	1.39
	Male	Existing	5	83	20	16	47	1.43	1.43
Optometrist	Female	Existing	4	74	25	15	61	1.00	1.01
	Male	Existing	-6	71	18	14	59	1.07	1.09
Paralegal	Female	Existing	8	82	14	13	60	1.05	1.05
	Male	Existing	2	72	16	16	60	1.04	1.05
Parks & Recreation Manager	Female	Existing	-5	72	23	16	54	1.23	1.23
	Male	Existing	7	65	25	14	62	1.00	1.01
Personal Financial Advisor	Female	New	0	68	31	25	42	1.62	1.62
	Male	New	-19	69	37	27	31	1.98	2.03
Pharmacist	Female	Existing	-1	80	27	16	51	1.29	1.31
	Male	Existing	4	80	24	15	56	1.15	1.16
Photographer	Female	Existing	-12	69	32	16	52	1.28	1.28
	Male	Existing	-19	77	30	16	41	1.63	1.64
Physical Therapist	Female	Existing	-22	72	21	16	46	1.44	1.47
	Male	Existing	-22	67	20	16	52	1.24	1.28
Physician	Female	Existing	-13	70	30	20	42	1.60	1.63
	Male	Existing	-21	67	23	24	36	1.82	1.85
Physicist	Female	Existing	-47	75	34	27	24	2.22	2.35
	Male	Existing	-67	68	34	24	33	1.81	1.93
Production Worker	Female	Existing	14	64	42	12	45	1.51	1.51
	Male	Existing	14	80	23	15	55	1.20	1.20
Psychologist	Female	Updated	-27	71	36	23	31	2.01	2.03
	Male	Updated	-30	70	38	26	30	2.02	2.07
Public Administrator	Female	Existing	-19	69	22	20	44	1.52	1.56
	Male	Existing	-9	64	28	20	52	1.28	1.30
Public Relations Director	Female	Existing	-46	70	37	22	37	1.73	1.80
	Male	Existing	-35	70	34	21	40	1.61	1.68
Purchasing Agent	Female	Existing	-1	76	22	16	53	1.25	1.27
	Male	Existing	0	68	20	16	55	1.19	1.20
R&D Manager	Female	Existing	-21	77	37	16	39	1.67	1.71
	Male	Existing	-11	72	29	18	41	1.61	1.65
Radiologic Technologist	Female	Existing	4	85	23	16	45	1.50	1.50
	Male	Existing	10	83	27	15	48	1.40	1.40
Realtor	Female	Updated	11	67	34	21	48	1.42	1.42
	Male	Existing	2	69	24	16	52	1.28	1.29

Table 2.1 • Scale Characteristics, Concurrent Validities (Percent Overlap), and Minimum and Maximum Possible Standard Scores for the Occupational Scales (continued)

Occupational Scale	Gender	New, Existing, Updated, or Revised	Minimum Possible Score	Maximum Possible Score	Number of Items	Minimum % Difference	Tilton % Overlap	Cohen's <i>d</i>	Tilton's <i>Q</i>
Recreation Therapist	Female	Existing	4	70	39	21	44	1.53	1.53
	Male	Existing	-14	69	42	23	30	2.07	2.09
Registered Nurse	Female	Updated	-3	69	30	20	42	1.59	1.61
	Male	Existing	-11	74	17	16	50	1.33	1.35
Rehabilitation Counselor	Female	Revised	-11	66	31	21	45	1.48	1.50
	Male	Revised	-4	70	35	20	42	1.59	1.61
Religious/Spiritual Leader	Female	New	-53	66	35	27	21	2.36	2.53
	Male	New	-28	65	37	26	28	2.07	2.17
Reporter	Female	Existing	-28	69	26	20	37	1.73	1.79
	Male	Existing	-31	71	22	24	31	1.95	2.04
Respiratory Therapist	Female	Existing	-5	78	17	16	45	1.48	1.50
	Male	Existing	-6	75	24	16	50	1.34	1.35
Restaurant Manager	Female	Existing	-3	77	22	16	56	1.15	1.17
	Male	Existing	-14	85	36	16	41	1.64	1.65
Sales Manager	Female	Updated	-5	68	39	24	39	1.70	1.72
	Male	Updated	-14	65	38	28	35	1.83	1.88
School Administrator	Female	Existing	-11	68	32	18	51	1.32	1.34
	Male	Existing	-20	75	43	17	47	1.41	1.43
School Counselor	Female	Existing	-5	69	36	16	48	1.40	1.41
	Male	Existing	-3	69	35	16	45	1.50	1.51
Science Teacher	Female	Existing	-11	69	33	16	39	1.69	1.72
	Male	Existing	-14	73	36	16	38	1.74	1.77
Secondary School Teacher	Female	New	-11	68	34	20	44	1.53	1.55
	Male	New	-1	68	38	22	42	1.57	1.60
Securities Sales Agent	Female	New	-4	64	36	29	33	1.94	1.95
	Male	New	-26	65	33	28	30	1.97	2.07
Social Worker	Female	Updated	-12	66	31	23	43	1.55	1.57
	Male	Updated	-12	74	39	25	28	2.15	2.16
Sociologist	Female	Existing	-39	72	26	24	29	2.07	2.13
	Male	Existing	-25	72	23	24	33	1.91	1.96
Software Developer	Female	Updated	17	68	36	26	43	1.56	1.56
	Male	Updated	3	66	36	18	53	1.24	1.25
Special Education Teacher	Female	Updated	-11	71	36	20	35	1.86	1.88
	Male	Existing	-7	78	21	16	52	1.28	1.29
Speech Pathologist	Female	Existing	-14	76	22	15	55	1.19	1.19
	Male	Existing	-8	79	25	18	49	1.37	1.37
Technical Sales Representative	Female	Updated	8	71	38	21	46	1.49	1.49
	Male	Updated	1	68	36	20	47	1.44	1.45
Technical Support Specialist	Female	Updated	18	75	37	17	53	1.27	1.27
	Male	Updated	5	69	26	16	53	1.25	1.26
Technical Writer	Female	Existing	-21	66	27	16	54	1.21	1.24
	Male	Existing	-27	83	44	16	45	1.50	1.53
Top Executive, Business/Finance	Female	New	-1	68	41	23	44	1.53	1.53
	Male	New	-19	64	34	26	43	1.53	1.59
Training & Development Specialist	Female	New	-9	64	31	22	47	1.41	1.43
	Male	New	-6	67	32	23	46	1.46	1.48
Translator	Female	Existing	-18	74	23	17	52	1.28	1.30
	Male	Existing	-1	77	32	18	46	1.47	1.47
University Administrator	Female	New	-10	67	35	23	45	1.49	1.52
	Male	New	-8	69	37	24	38	1.72	1.74

Table 2.1 • Scale Characteristics, Concurrent Validities (Percent Overlap), and Minimum and Maximum Possible Standard Scores for the Occupational Scales (continued)

Occupational Scale	Gender	New, Existing, Updated, or Revised	Minimum Possible Score	Maximum Possible Score	Number of Items	Minimum % Difference	Tilton % Overlap	Cohen's <i>d</i>	Tilton's <i>Q</i>
University Faculty Member	Female	New	-3	68	34	24	36	1.84	1.84
	Male	New	-24	72	37	27	29	2.08	2.11
Urban & Regional Planner	Female	Existing	-11	62	45	23	39	1.70	1.74
	Male	Existing	-7	62	41	22	47	1.46	1.46
Veterinarian	Female	Existing	-26	83	38	17	37	1.75	1.80
	Male	Existing	-28	82	26	16	42	1.56	1.61
Vocational Agriculture Teacher	Female	Existing	-21	76	21	16	34	1.89	1.91
	Male	Existing	-9	70	29	20	38	1.77	1.77
Wholesale Sales Representative	Female	New	0	67	27	23	42	1.60	1.61
	Male	New	2	67	34	21	46	1.48	1.50

Note: The size of each occupational sample can be found in the appendix.

The OS formulas and scoring are developed separately for women and men. A question typically arises regarding how similar each OS is for women and men in terms of the scale content and the scores for each gender. In other words, if a woman received a score of 55 on a particular OS, what score would a man with the same pattern of responses receive? To examine this, the means of female and male scales for the same occu-

pations were compared for women and men in the GRS. The results of this analysis are presented in Table 2.2. **Please note that Table 2.2 is a replacement for Table 5.2 in the *Strong* manual.** As illustrated, opposite-gender scores were relatively similar to the corresponding same-gender scores. These findings suggest that for the vast majority of the OSs, an individual's female and male OS scores will tend to be very similar.

Table 2.2 • Comparison of the Occupational Scales by Gender

Occupational Scale	Correlation for Combined GRS	Women in the GRS			Men in the GRS		
		Mean Score on Female Scale	Mean Score on Male Scale	Mean Difference	Mean Score on Male Scale	Mean Score on Female Scale	Mean Difference
Accountant	.82	35.52	32.20	3.32	35.62	38.70	-3.08
Actuary	.92	26.29	18.01	8.28	28.79	36.28	-7.49
Administrative Assistant	.78	41.22	47.99	-6.77	39.26	37.08	2.18
Advertising Account Manager	.87	36.67	38.03	-1.35	30.36	30.01	0.35
Architect	.87	15.87	21.73	-5.87	24.60	25.94	-1.34
Art Teacher	.90	13.70	23.68	-9.98	11.80	7.33	4.46
Artist	.89	32.25	29.95	2.30	24.03	31.93	-7.89
Arts/Entertainment Manager	.92	38.61	42.35	-3.74	37.87	37.79	0.08
Athletic Trainer	.76	8.72	16.91	-8.19	20.22	13.74	6.48
Attorney	.95	27.05	24.07	2.97	22.44	28.95	-6.51
Auditor	.93	36.70	29.83	6.88	34.54	39.48	-4.94
Automobile Mechanic	.77	23.71	25.11	-1.39	31.91	34.81	-2.90
Bartender	.67	34.52	33.20	1.32	25.51	33.47	-7.97
Biologist	.74	21.39	30.07	-8.68	31.39	29.94	1.45
Broadcast Journalist	.90	35.60	32.52	3.08	29.34	29.02	0.32
Business Education Teacher	.85	30.93	38.77	-7.83	33.37	27.66	5.71
Business/Finance Supervisor	.95	37.25	33.95	3.30	35.01	38.35	-3.34
Buyer	.92	37.94	36.43	1.51	27.25	28.95	-1.70
Career Counselor	.97	29.90	37.43	-7.53	28.17	22.76	5.41
Carpenter	.65	20.04	24.34	-4.30	31.17	31.95	-0.77
Chef	.66	32.90	35.11	-2.21	27.31	25.64	1.67

Note: *N* = 2,250 (1,125 women and 1,125 men).

Table 2.2 • Comparison of the Occupational Scales by Gender (continued)

Occupational Scale	Correlation for Combined GRS	Women in the GRS			Men in the GRS		
		Mean Score on Female Scale	Mean Score on Male Scale	Mean Difference	Mean Score on Male Scale	Mean Score on Female Scale	Mean Difference
Chemist	.97	20.50	11.47	9.03	25.33	33.66	-8.33
Chiropractor	.85	29.91	29.18	0.73	28.79	34.75	-5.96
Community Service Director	.52	38.20	35.57	2.63	30.39	35.48	-5.09
Computer & IS Manager	.53	37.05	31.55	5.50	38.85	46.28	-7.43
Computer Programmer	.96	36.68	28.57	8.11	35.22	44.32	-9.10
Computer Scientist	.93	23.38	16.28	7.10	25.48	36.63	-11.15
Computer Systems Analyst	.53	37.16	33.29	3.87	40.25	40.36	-0.11
Computer/Mathematics Manager	.90	30.64	27.23	3.41	35.18	38.42	-3.24
Cosmetologist	.48	34.58	42.10	-7.52	30.38	26.20	4.18
Credit Manager	.65	38.86	34.44	4.42	37.76	37.10	0.66
Customer Service Representative	.83	39.40	44.83	-5.43	38.90	34.74	4.16
Dentist	.92	24.66	21.84	2.82	26.91	29.34	-2.43
Dietitian	.61	29.20	36.67	-7.47	29.60	26.14	3.46
Editor	.98	26.43	30.29	-3.86	26.05	23.60	2.45
Elected Public Official	.96	23.61	22.88	0.74	24.82	25.75	-0.92
Electrician	.53	20.71	24.46	-3.75	34.00	32.67	1.33
Elementary School Teacher	.92	31.32	36.71	-5.38	32.04	26.31	5.73
Emergency Medical Technician	.80	30.40	29.73	0.67	34.01	30.17	3.84
Engineer	.98	31.38	25.50	5.88	36.03	40.70	-4.68
Engineering Technician	.79	32.92	20.16	12.75	31.90	42.44	-10.54
English Teacher	.98	15.28	20.65	-5.37	15.18	10.14	5.04
ESL Instructor	.84	29.10	34.95	-5.86	24.66	26.67	-2.01
Facilities Manager	.71	40.35	39.19	1.16	38.91	36.57	2.35
Farmer/Rancher	.79	35.26	31.24	4.02	34.26	33.82	0.44
Financial Analyst	.26	40.06	30.53	9.53	35.39	41.69	-6.30
Financial Manager	.89	33.66	24.39	9.26	30.51	37.05	-6.54
Firefighter	.85	18.60	20.72	-2.12	29.57	30.24	-0.68
Flight Attendant	.85	38.60	44.66	-6.07	36.58	33.22	3.36
Florist	.87	34.10	41.05	-6.95	34.46	26.71	7.75
Food Service Manager	.40	36.04	38.68	-2.64	33.45	32.38	1.07
Forester	.78	26.96	23.66	3.30	31.67	37.97	-6.30
Geographer	.86	17.70	23.82	-6.11	22.90	32.26	-9.36
Geologist	.88	18.47	22.36	-3.89	30.00	32.17	-2.17
Graphic Designer	.55	30.31	33.93	-3.62	28.21	31.70	-3.49
Health Information Specialist	.58	39.59	39.77	-0.18	37.62	35.83	1.79
Horticulturist	.88	31.29	32.90	-1.61	33.01	27.84	5.18
Human Resources Manager	.95	31.79	33.92	-2.14	30.18	31.60	-1.42
Human Resources Specialist	.89	38.90	37.63	1.27	32.99	38.53	-5.54
Instructional Coordinator	.94	37.67	40.72	-3.04	38.16	36.00	2.16
Interior Designer	.74	25.81	40.03	-14.22	28.36	21.50	6.86
Landscape/Grounds Manager	.59	32.87	34.03	-1.16	37.30	40.73	-3.43
Law Enforcement Officer	.63	32.44	31.13	1.31	36.65	40.77	-4.12
Librarian	.87	35.90	42.08	-6.18	33.21	31.93	1.28
Life Insurance Agent	.91	34.91	32.76	2.15	33.27	34.72	-1.45
Loan Officer/Counselor	.84	37.24	28.84	8.40	31.26	36.94	-5.68
Management Analyst	.90	36.77	34.06	2.71	36.70	40.97	-4.27
Marketing Manager	.94	31.10	31.21	-0.11	32.63	31.49	1.14
Mathematician	.80	9.53	15.95	-6.43	19.39	23.73	-4.33
Mathematics Teacher	.89	19.96	18.09	1.87	25.54	27.58	-2.04
Medical Illustrator	.76	15.46	17.26	-1.81	10.22	18.09	-7.87
Medical Technician	.73	32.14	21.74	10.40	26.04	30.15	-4.11
Medical Technologist	.92	25.29	23.46	1.83	28.02	30.65	-2.63
Mental Health Counselor	.96	25.36	33.47	-8.11	23.02	15.21	7.81
Middle School Teacher	.87	30.74	32.67	-1.94	30.36	25.21	5.15
Military Enlisted	.65	34.08	30.13	3.94	38.21	35.27	2.94
Military Officer	.81	31.40	22.92	8.48	34.23	39.95	-5.72

Table 2.2 • Comparison of the Occupational Scales by Gender (continued)

Occupational Scale	Correlation for Combined GRS	Women in the GRS			Men in the GRS		
		Mean Score on Female Scale	Mean Score on Male Scale	Mean Difference	Mean Score on Male Scale	Mean Score on Female Scale	Mean Difference
Musician	.91	32.42	40.56	-8.13	33.47	25.41	8.06
Network Administrator	.97	34.99	23.55	11.44	34.34	44.50	-10.16
Nursing Home Administrator	.87	40.08	40.95	-0.87	37.75	36.49	1.25
Occupational Therapist	.87	32.92	36.77	-3.85	30.53	26.28	4.25
Operations Manager	.96	37.73	30.68	7.05	34.14	40.18	-6.04
Optician	.79	37.76	36.86	0.91	36.30	32.04	4.26
Optometrist	.95	29.47	24.00	5.47	30.37	35.30	-4.93
Paralegal	.71	42.74	40.33	2.41	38.68	39.83	-1.15
Parks & Recreation Manager	.88	34.55	38.27	-3.72	39.20	36.71	2.49
Personal Financial Advisor	.85	32.52	17.92	14.61	23.32	35.33	-12.01
Pharmacist	.87	30.96	34.00	-3.03	34.44	34.30	0.14
Photographer	.83	38.05	35.70	2.35	33.77	34.15	-0.37
Physical Therapist	.95	23.31	22.03	1.29	26.22	24.86	1.36
Physician	.93	25.14	18.44	6.70	23.70	30.53	-6.82
Physicist	.97	4.37	-0.93	5.30	15.84	22.85	-7.01
Production Worker	.50	40.21	35.48	4.73	42.19	39.69	2.50
Psychologist	.90	25.72	24.27	1.45	23.33	27.34	-4.01
Public Administrator	.88	23.38	26.70	-3.31	28.72	30.24	-1.52
Public Relations Director	.95	22.32	27.51	-5.20	23.06	19.89	3.16
Purchasing Agent	.84	33.16	30.99	2.17	32.72	31.13	1.59
R&D Manager	.91	21.31	14.58	6.74	26.41	33.63	-7.22
Radiologic Technologist	.88	37.60	38.27	-0.67	38.26	33.84	4.42
Realtor	.93	36.56	29.50	7.06	32.61	38.12	-5.51
Recreation Therapist	.82	34.14	29.92	4.22	26.05	35.96	-9.91
Registered Nurse	.84	30.92	33.48	-2.56	28.57	29.62	-1.05
Rehabilitation Counselor	.96	31.92	38.24	-6.32	31.88	26.62	5.26
Religious/Spiritual Leader	.96	9.14	23.58	-14.44	18.64	4.88	13.76
Reporter	.88	24.51	25.17	-0.66	17.49	23.00	-5.51
Respiratory Therapist	.69	31.01	25.31	5.70	27.78	25.71	2.08
Restaurant Manager	.67	34.03	38.54	-4.50	34.82	31.32	3.50
Sales Manager	.98	29.51	19.64	9.87	25.38	33.87	-8.48
School Administrator	.95	30.49	25.49	5.01	29.59	34.15	-4.57
School Counselor	.98	31.25	33.31	-2.06	29.53	27.79	1.74
Science Teacher	.94	18.11	19.26	-1.14	24.23	23.64	0.59
Secondary School Teacher	.91	31.33	34.03	-2.71	30.94	25.59	5.35
Securities Sales Agent	.95	28.52	14.65	13.87	19.74	30.55	-10.81
Social Worker	.83	31.17	36.47	-5.30	26.55	22.90	3.66
Sociologist	.86	14.82	19.81	-5.00	19.07	21.59	-2.52
Software Developer	.97	33.66	25.63	8.04	35.10	41.71	-6.60
Special Education Teacher	.86	27.54	42.05	-14.51	32.58	20.45	12.13
Speech Pathologist	.85	39.39	43.48	-4.09	33.71	27.59	6.12
Technical Sales Representative	.92	34.78	33.12	1.66	33.75	38.01	-4.26
Technical Support Specialist	.94	37.02	30.22	6.81	35.52	43.29	-7.77
Technical Writer	.92	28.78	33.93	-5.16	27.90	25.62	2.28
Top Executive, Business/Finance	.96	32.91	24.62	8.29	28.08	38.03	-9.95
Training & Development Specialist	.88	33.49	35.37	-1.89	32.31	34.05	-1.74
Translator	.81	33.11	41.44	-8.33	33.93	27.10	6.82
University Administrator	.92	31.68	35.35	-3.67	29.12	29.57	-0.45
University Faculty Member	.91	31.29	28.17	3.13	24.37	31.84	-7.48
Urban & Regional Planner	.75	28.17	36.12	-7.94	33.56	35.71	-2.14
Veterinarian	.93	20.58	17.11	3.48	22.94	28.08	-5.13
Vocational Agriculture Teacher	.72	22.52	23.02	-0.50	29.07	27.90	1.17
Wholesale Sales Representative	.95	31.73	31.96	-0.23	32.91	33.91	-1.00

Note: $N = 2,250$ (1,125 women and 1,125 men).

Reliability of the Occupational Scales

Test-retest reliability statistics were computed for each of the OSs and are reported in Table 3.1. As new, updated, and revised OSs were computed from existing *Strong* items, the test-retest sample from 2004 (Donnay et al., 2005) could be used for the current reliability analysis.

The length of time between administrations for this sample ranged from 2 to 23 months. The median test-

retest reliability for the updated OSs was .86, which is regarded as a moderate to high level of reliability (Murphy & Davidshofer, 2005). This was also the median reliability reported for the 2004 OSs (Donnay et al., 2005). Similarly, the range for the updated OSs was .71 to .93; this is the same range reported for the 2004 OSs (Donnay et al., 2005) as well. **Please note that Table 3.1 is a replacement for Table 5.4 in the *Strong* manual.**

Table 3.1 • OS Test-Retest Reliability Statistics

Occupational Scale	Gender	Test-Retest Correlation	Test		Retest	
			Mean	SD	Mean	SD
Accountant	Female	.85	37.11	10.82	37.76	11.17
	Male	.83	34.61	10.93	34.97	10.87
Actuary	Female	.89	31.57	14.48	32.08	14.58
	Male	.88	26.47	16.27	25.91	16.72
Administrative Assistant	Female	.78	38.92	10.34	40.63	9.99
	Male	.87	42.12	7.91	42.01	8.12
Advertising Account Manager	Female	.88	32.32	14.17	31.87	13.56
	Male	.91	36.24	14.21	36.68	14.19
Architect	Female	.84	24.34	17.88	25.63	18.22
	Male	.83	26.41	16.09	28.05	15.97
Art Teacher	Female	.83	13.33	18.63	14.50	19.09
	Male	.85	22.32	19.05	23.56	19.68
Artist	Female	.82	33.32	12.50	32.76	12.59
	Male	.86	30.40	14.16	29.58	14.87
Arts/Entertainment Manager	Female	.85	40.77	12.00	42.64	11.20
	Male	.84	42.87	11.38	41.75	11.34
Athletic Trainer	Female	.85	8.41	15.43	10.15	15.53
	Male	.91	14.49	14.67	15.17	15.09
Attorney	Female	.91	31.32	14.76	32.17	14.70
	Male	.87	27.27	14.94	27.08	14.77
Auditor	Female	.80	37.90	10.08	39.11	10.34
	Male	.85	34.08	12.73	34.20	13.05
Automobile Mechanic	Female	.90	24.98	12.85	26.15	13.70
	Male	.91	23.26	12.07	23.28	12.98
Bartender	Female	.85	32.55	10.92	32.79	11.14
	Male	.79	27.19	13.15	27.45	12.89
Biologist	Female	.89	30.46	17.33	29.79	17.27
	Male	.88	33.94	14.75	33.42	14.78
Broadcast Journalist	Female	.92	33.71	13.21	33.75	13.37
	Male	.93	34.50	14.29	34.40	14.57
Business Education Teacher	Female	.84	28.16	10.35	28.47	10.64
	Male	.84	35.07	10.51	35.91	10.45
Business/Finance Supervisor	Female	.79	35.85	11.45	36.87	11.91
	Male	.86	33.48	12.65	33.81	12.89
Buyer	Female	.90	30.81	14.10	30.26	14.00
	Male	.87	27.68	16.30	27.43	16.51
Career Counselor	Female	.85	30.81	14.16	31.68	14.93
	Male	.86	33.15	14.67	32.09	13.65
Carpenter	Female	.89	25.16	13.26	25.52	13.70
	Male	.85	25.56	11.35	26.68	12.16
Chef	Female	.81	29.93	14.42	30.70	14.17
	Male	.77	29.22	13.86	29.83	13.76
Chemist	Female	.92	29.66	18.36	29.48	17.57
	Male	.91	22.49	20.47	21.79	19.88
Chiropractor	Female	.85	33.30	12.64	34.81	12.89
	Male	.84	28.41	12.36	30.16	12.84
Community Service Director	Female	.86	34.17	13.67	34.55	13.28
	Male	.78	36.10	11.63	34.65	11.49
Computer & IS Manager	Female	.80	40.25	13.65	39.88	14.11
	Male	.87	41.01	10.74	40.30	11.09
Computer Programmer	Female	.87	39.57	10.59	40.79	10.70
	Male	.91	38.80	11.87	37.37	11.43

Table 3.1 • OS Test-Retest Reliability Statistics (continued)

Occupational Scale	Gender	Test-Retest Correlation	Test		Retest	
			Mean	SD	Mean	SD
Computer Scientist	Female	.90	32.13	16.29	32.48	15.75
	Male	.92	24.11	17.14	23.99	16.68
Computer Systems Analyst	Female	.71	39.27	13.63	37.47	13.55
	Male	.85	42.95	10.90	41.63	11.52
Computer/Mathematics Manager	Female	.77	30.45	14.49	31.67	14.45
	Male	.83	36.72	11.60	36.11	11.89
Cosmetologist	Female	.76	26.98	12.01	28.05	11.97
	Male	.84	35.65	12.49	36.92	12.50
Credit Manager	Female	.81	37.06	9.91	37.69	10.12
	Male	.84	33.46	11.72	34.38	12.01
Customer Service Representative	Female	.81	36.92	10.25	38.80	10.03
	Male	.87	40.75	8.27	40.73	8.63
Dentist	Female	.80	27.29	15.59	29.52	16.08
	Male	.82	25.76	15.25	27.32	16.21
Dietitian	Female	.79	28.43	11.72	29.33	11.85
	Male	.78	34.17	10.94	35.05	11.57
Editor	Female	.88	33.19	17.68	35.71	17.22
	Male	.92	34.72	16.90	33.28	17.47
Elected Public Official	Female	.89	26.46	14.63	26.23	14.31
	Male	.88	25.56	15.52	25.35	15.03
Electrician	Female	.87	25.47	12.49	26.66	13.25
	Male	.91	23.52	13.21	24.38	13.37
Elementary School Teacher	Female	.83	30.27	14.23	32.00	14.05
	Male	.88	35.27	11.31	34.54	10.15
Emergency Medical Technician	Female	.87	25.85	12.16	27.40	12.41
	Male	.92	27.34	12.22	27.84	12.62
Engineer	Female	.85	34.71	11.59	36.16	11.67
	Male	.90	38.29	13.10	37.40	12.86
Engineering Technician	Female	.90	37.87	11.97	39.11	12.03
	Male	.90	24.21	14.22	25.36	14.29
English Teacher	Female	.89	20.58	22.17	21.82	21.84
	Male	.90	25.95	20.05	26.89	19.90
ESL Instructor	Female	.87	34.80	14.21	35.43	13.96
	Male	.92	37.82	14.29	38.11	14.39
Facilities Manager	Female	.81	35.83	10.47	37.02	10.93
	Male	.84	34.97	12.33	36.09	12.85
Farmer/Rancher	Female	.88	31.34	9.25	30.90	8.69
	Male	.91	27.60	11.64	27.07	11.33
Financial Analyst	Female	.85	38.88	9.98	38.11	10.17
	Male	.89	33.88	12.97	33.50	13.69
Financial Manager	Female	.83	34.45	11.85	34.89	12.31
	Male	.87	27.62	14.91	27.91	15.28
Firefighter	Female	.90	22.31	15.58	23.61	15.93
	Male	.92	21.68	13.31	22.54	13.75
Flight Attendant	Female	.83	33.19	11.99	33.99	11.76
	Male	.85	40.29	11.72	41.05	11.78
Florist	Female	.79	25.65	13.73	26.80	14.12
	Male	.80	35.00	11.45	35.54	11.44
Food Service Manager	Female	.79	33.19	8.95	33.83	9.18
	Male	.82	35.48	11.65	36.59	11.51
Forester	Female	.89	32.92	15.36	33.06	14.85
	Male	.87	25.35	14.23	25.80	13.03

Table 3.1 • OS Test-Retest Reliability Statistics (continued)

Occupational Scale	Gender	Test-Retest Correlation	Test		Retest	
			Mean	SD	Mean	SD
Geographer	Female	.89	28.06	16.55	27.80	16.79
	Male	.91	31.83	14.79	31.53	15.11
Geologist	Female	.93	27.51	17.50	27.05	16.72
	Male	.89	27.80	15.40	27.02	14.73
Graphic Designer	Female	.84	31.86	14.83	35.06	13.97
	Male	.85	33.75	12.69	33.31	13.22
Health Information Specialist	Female	.83	37.18	10.18	37.68	10.26
	Male	.72	39.19	10.38	40.41	10.55
Horticulturist	Female	.78	27.33	12.05	27.62	11.42
	Male	.80	28.87	11.83	29.91	11.48
Human Resources Manager	Female	.84	31.17	14.57	32.81	14.43
	Male	.84	33.19	13.05	32.25	11.81
Human Resources Specialist	Female	.76	37.99	10.97	39.36	11.19
	Male	.86	35.60	12.63	34.92	11.79
Instructional Coordinator	Female	.82	39.20	12.57	41.17	12.48
	Male	.80	42.09	9.39	41.09	8.78
Interior Designer	Female	.77	23.43	15.13	23.64	15.57
	Male	.89	35.53	12.57	35.86	12.94
Landscape/Grounds Manager	Female	.87	33.73	12.95	34.34	12.99
	Male	.81	29.56	12.20	30.57	12.27
Law Enforcement Officer	Female	.89	33.19	11.39	33.70	11.60
	Male	.90	27.86	12.88	28.33	12.91
Librarian	Female	.91	40.77	14.76	40.53	14.83
	Male	.93	44.94	14.00	44.00	14.81
Life Insurance Agent	Female	.85	31.67	14.33	31.36	13.24
	Male	.81	29.00	14.21	28.94	13.34
Loan Officer/Counselor	Female	.80	36.42	10.17	36.96	10.79
	Male	.92	28.32	14.29	28.42	13.75
Management Analyst	Female	.75	38.46	10.89	39.77	12.30
	Male	.83	38.38	11.69	37.91	11.63
Marketing Manager	Female	.83	29.06	14.49	30.33	14.60
	Male	.89	33.74	14.25	33.61	13.95
Mathematician	Female	.91	20.82	19.71	20.76	18.76
	Male	.92	24.23	17.48	23.25	16.96
Mathematics Teacher	Female	.86	24.78	12.68	25.25	12.58
	Male	.87	21.99	12.49	22.61	12.91
Medical Illustrator	Female	.83	18.14	16.68	19.26	17.12
	Male	.82	17.63	18.16	19.22	18.64
Medical Technician	Female	.88	28.30	12.99	28.40	13.08
	Male	.86	21.02	14.24	21.89	15.46
Medical Technologist	Female	.87	29.20	14.36	30.35	14.24
	Male	.85	27.08	12.78	27.81	13.24
Mental Health Counselor	Female	.90	26.61	16.74	26.74	17.24
	Male	.91	26.27	14.17	25.80	13.28
Middle School Teacher	Female	.82	30.96	14.70	31.96	14.22
	Male	.84	33.36	13.69	32.53	11.83
Military Enlisted	Female	.84	30.89	10.30	31.99	10.70
	Male	.93	28.51	12.98	28.36	13.18
Military Officer	Female	.83	34.36	10.13	35.02	10.76
	Male	.90	27.26	12.34	28.05	12.33
Musician	Female	.89	34.26	13.95	34.01	13.99
	Male	.89	41.51	12.45	40.95	12.62

Table 3.1 • OS Test-Retest Reliability Statistics (continued)

Occupational Scale	Gender	Test-Retest Correlation	Test		Retest	
			Mean	SD	Mean	SD
Network Administrator	Female	.88	37.98	10.99	39.48	11.25
	Male	.88	36.91	13.51	35.52	13.76
Nursing Home Administrator	Female	.79	36.93	11.21	37.81	11.24
	Male	.78	37.56	12.41	38.65	12.35
Occupational Therapist	Female	.83	30.22	14.26	31.49	14.03
	Male	.79	35.23	13.39	36.54	13.31
Operations Manager	Female	.81	35.66	12.33	36.87	12.59
	Male	.90	32.79	14.71	32.67	14.47
Optician	Female	.77	31.09	11.72	31.76	11.21
	Male	.83	32.27	11.21	32.31	11.27
Optometrist	Female	.87	34.21	12.48	35.28	12.40
	Male	.85	28.91	15.52	29.83	15.63
Paralegal	Female	.76	41.43	10.05	41.19	10.87
	Male	.84	40.81	11.93	40.55	12.68
Parks & Recreation Manager	Female	.82	33.12	12.51	33.33	12.45
	Male	.87	36.10	10.94	36.24	11.11
Personal Financial Advisor	Female	.79	31.05	11.42	31.32	11.65
	Male	.92	20.33	16.46	20.22	15.92
Pharmacist	Female	.83	32.46	13.68	33.89	14.54
	Male	.78	32.74	12.56	34.87	12.76
Photographer	Female	.90	38.19	11.72	38.23	12.10
	Male	.85	36.73	11.62	37.46	12.46
Physical Therapist	Female	.82	22.65	18.04	25.11	18.50
	Male	.83	22.39	19.02	24.13	19.07
Physician	Female	.88	29.99	14.64	29.90	14.61
	Male	.86	24.29	16.04	24.35	15.98
Physicist	Female	.91	18.24	23.56	17.83	23.04
	Male	.90	13.12	25.75	12.98	24.72
Production Worker	Female	.89	35.58	10.06	35.20	9.84
	Male	.86	32.79	11.66	33.87	11.92
Psychologist	Female	.89	33.07	13.58	34.36	13.59
	Male	.86	31.86	15.81	29.54	16.04
Public Administrator	Female	.88	30.98	15.92	30.30	15.57
	Male	.89	32.40	15.17	32.58	14.74
Public Relations Director	Female	.89	23.95	18.93	24.35	18.31
	Male	.89	29.01	18.21	29.34	17.75
Purchasing Agent	Female	.88	29.30	15.15	29.98	15.26
	Male	.85	30.39	13.34	31.20	13.85
R&D Manager	Female	.90	29.89	16.61	29.76	16.30
	Male	.90	23.12	16.63	23.04	16.04
Radiologic Technologist	Female	.85	32.01	11.60	32.90	12.17
	Male	.89	34.53	11.35	35.08	11.26
Realtor	Female	.83	32.94	11.09	33.82	10.81
	Male	.87	28.58	13.69	29.09	12.76
Recreation Therapist	Female	.84	34.64	11.14	35.53	10.80
	Male	.85	28.59	13.35	29.45	13.04
Registered Nurse	Female	.83	31.74	13.24	34.39	13.08
	Male	.81	33.31	15.66	35.01	16.70
Rehabilitation Counselor	Female	.81	33.44	13.63	34.80	14.12
	Male	.85	36.87	12.48	35.65	12.01
Religious/Spiritual Leader	Female	.85	11.42	20.45	14.15	21.05
	Male	.84	25.50	16.47	22.79	15.52

Table 3.1 • OS Test-Retest Reliability Statistics (continued)

Occupational Scale	Gender	Test-Retest Correlation	Test		Retest	
			Mean	SD	Mean	SD
Reporter	Female	.91	28.41	16.71	28.80	17.87
	Male	.91	30.34	19.79	30.84	20.08
Respiratory Therapist	Female	.85	28.21	14.14	29.03	14.81
	Male	.82	27.88	13.66	30.01	14.39
Restaurant Manager	Female	.88	30.41	14.89	30.70	14.44
	Male	.90	31.75	14.11	31.51	13.81
Sales Manager	Female	.81	27.52	14.24	28.60	13.83
	Male	.92	23.08	17.30	22.81	16.65
School Administrator	Female	.86	33.16	14.45	34.07	13.30
	Male	.83	27.87	13.97	28.56	13.57
School Counselor	Female	.86	31.51	13.10	31.53	13.20
	Male	.86	34.41	12.80	34.41	13.43
Science Teacher	Female	.83	24.06	14.12	24.82	14.32
	Male	.82	24.12	13.77	25.01	13.54
Secondary School Teacher	Female	.85	32.10	14.20	33.37	14.66
	Male	.84	36.72	12.92	35.12	12.58
Securities Sales Agent	Female	.80	26.25	12.14	27.09	12.30
	Male	.92	17.62	20.69	16.82	19.97
Social Worker	Female	.84	31.31	13.83	32.79	13.97
	Male	.90	30.76	12.43	29.81	11.92
Sociologist	Female	.86	26.16	17.56	26.01	17.21
	Male	.87	30.06	17.95	30.39	18.01
Software Developer	Female	.88	37.00	11.50	38.19	11.79
	Male	.88	38.31	12.78	37.05	12.76
Special Education Teacher	Female	.85	27.21	14.13	28.60	13.89
	Male	.83	38.44	15.36	39.30	15.19
Speech Pathologist	Female	.83	34.74	13.01	35.22	13.43
	Male	.86	40.76	12.09	41.12	12.21
Technical Sales Representative	Female	.78	33.58	10.40	34.85	10.54
	Male	.93	32.60	12.44	32.39	11.99
Technical Support Specialist	Female	.86	38.16	10.99	40.03	10.50
	Male	.85	39.21	11.01	38.16	11.72
Technical Writer	Female	.88	34.90	17.19	35.57	16.66
	Male	.91	38.94	16.29	39.09	15.89
Top Executive, Business/Finance	Female	.83	31.81	12.14	33.15	12.11
	Male	.88	27.59	17.36	27.24	16.99
Training & Development Specialist	Female	.81	33.13	12.64	34.02	12.32
	Male	.87	37.32	12.98	35.77	12.60
Translator	Female	.89	37.31	14.36	37.37	14.84
	Male	.92	43.80	11.63	43.31	12.11
University Administrator	Female	.84	33.43	13.68	34.67	13.71
	Male	.85	34.88	12.41	33.57	12.07
University Faculty Member	Female	.86	37.04	11.04	38.47	10.56
	Male	.89	33.06	14.41	31.01	14.08
Urban & Regional Planner	Female	.88	25.57	16.89	27.26	16.93
	Male	.84	19.58	17.81	21.24	18.60
Veterinarian	Female	.82	22.66	12.78	23.79	12.62
	Male	.90	21.80	10.91	22.37	11.44
Vocational Agriculture Teacher	Female	.87	35.90	14.10	36.87	13.81
	Male	.89	40.68	11.20	41.18	11.59
Wholesale Sales Representative	Female	.82	28.96	13.31	30.28	13.10
	Male	.91	31.03	13.15	30.92	12.80

Note: Results are from the overall test-retest sample, $N = 174$ (109 women and 65 men). A description of this sample is provided on page 10 of the *Strong* manual.

Validity of the Occupational Scales

A number of analyses were computed to examine the validity of the OSs. Concurrent validity was examined using the correlations among the OSs—specifically, correlations determine whether OSs with the same Theme code are more similar to each other than to OSs in general. Correlations between the OSs and the General Occupational Themes (GOTs), Basic Interest Scales (BISs), and Personal Style Scales (PSSs) were also computed. By comparing the scores of people who are currently employed in different occupations, correlations between the OSs and other *Strong* instrument scales can speak to the validity of each scale. If the scales are working as they should, people will score high on scales relevant to their own occupation.

Correlations Among the Occupational Scales

Discriminant validity can be evaluated by examining the correlations among the OSs, where OSs within Themes are expected to be more strongly related than OSs overall. As shown in Table 4.1, the median correlations within Theme for women ranged from .34 for Conventional to .61 for Investigative. The median correlations for men ranged from .45 for Realistic to .57 for Artistic. These results show that the OSs that share the same Theme tend to be related to a greater extent

than OSs overall. In addition, the low overall median correlation shows that in general the OSs are measuring the unique interests of people in these occupations; that is, each OS provides a measure of unique qualities. These findings provide support for the discriminant validity of the OSs. **Please note that Table 4.1 is a replacement for Table 5.6 in the *Strong* manual.**

It should be noted that the correlational patterns here are somewhat different from those reported in the *Strong* manual, as the median correlations for women ranged from .39 for Conventional, Realistic, and Social to .57 for Artistic, while the median correlations reported for men ranged from .27 for Conventional to .58 for Investigative. Nevertheless, the overall findings remain the same; OSs within each Theme are more similar than are OSs across all Themes.

Table 4.1 • OS Correlations Overall and Within Theme for Women and Men in the GRS

Theme	OS Correlation	
	Women <i>r</i>	Men <i>r</i>
Realistic	.39	.45
Investigative	.61	.55
Artistic	.54	.57
Social	.50	.52
Enterprising	.46	.51
Conventional	.34	.51
Overall	.15	.16

Note: *N* = 2,250 (1,125 women and 1,125 men).

Correlations Between the GOTs and the OSs

Tables 4.2–4.7 illustrate the relationship between each of the six General Occupational Themes (GOTs) and the new, updated, and revised OSs. The tables show the 10 highest-correlating and 10 lowest-correlating OSs—separately for women and men—for each GOT.

These correlations can help provide a better understanding of each of the GOTs and can help confirm the constructs underlying each Theme. For example, strong positive relationships exist between the Artistic GOT and OSs such as Arts/Entertainment Manager and Editor. These relationships provide a powerful demonstration of the validity of the GOTs. Please refer to the *Strong* manual (Figures 3.2–3.7) for correlations with existing OSs.

Table 4.2 • Ten Highest and Lowest Correlations Between Realistic Theme and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Engineer	.70	Engineer	.69
Network Administrator	.68	Computer & IS Manager	.65
Technical Support Specialist	.67	Network Administrator	.64
Computer Programmer	.64	Software Developer	.62
Software Developer	.61	Technical Support Specialist	.59
Graphic Designer	.51	Computer/Mathematics Manager	.58
Registered Nurse	.49	Computer Systems Analyst	.57
Computer/Mathematics Manager	.45	Computer Programmer	.54
Technical Sales Representative	.43	Accountant	.37
Management Analyst	.38	Auditor	.36
Training & Development Specialist	.13	Human Resources Manager	.08
Bartender	.11	Attorney	.08
Secondary School Teacher	.09	Training & Development Specialist	.07
Loan Officer/Counselor	.08	Editor	.07
Elementary School Teacher	.07	University Faculty Member	.07
Middle School Teacher	.06	Human Resources Specialist	.04
Social Worker	.01	University Administrator	-.03
Special Education Teacher	-.01	Career Counselor	-.04
Career Counselor	-.03	Social Worker	-.20
Mental Health Counselor	-.23	Mental Health Counselor	-.26

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.3 • Ten Highest and Lowest Correlations Between Investigative Theme and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Engineer	.84	Engineer	.84
Registered Nurse	.76	Software Developer	.79
Network Administrator	.73	Computer Programmer	.76
Software Developer	.71	Network Administrator	.74
Computer Programmer	.70	Psychologist	.72
University Faculty Member	.68	Computer/Mathematics Manager	.66
Psychologist	.60	Technical Support Specialist	.61
Technical Support Specialist	.56	Computer Systems Analyst	.60
Management Analyst	.44	Computer & IS Manager	.59
Computer/Mathematics Manager	.42	University Faculty Member	.59
Social Worker	.12	Marketing Manager	.15
Elementary School Teacher	.11	Securities Sales Agent	.15
Marketing Manager	.10	Career Counselor	.12
Middle School Teacher	.10	Human Resources Specialist	.10
Administrative Assistant	.09	Wholesale Sales Representative	.10
Career Counselor	.08	Technical Sales Representative	.08
Special Education Teacher	.06	Loan Officer/Counselor	.04
Loan Officer/Counselor	.06	Social Worker	-.03
Bartender	-.03	Bartender	-.06
Mental Health Counselor	-.10	Mental Health Counselor	-.21

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.4 • Ten Highest and Lowest Correlations Between Artistic Theme and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Editor	.92	Arts/Entertainment Manager	.93
Arts/Entertainment Manager	.88	Editor	.90
Graphic Designer	.79	Instructional Coordinator	.66
Instructional Coordinator	.68	Bartender	.64
Attorney	.65	Secondary School Teacher	.64
Psychologist	.61	Attorney	.62
Religious/Spiritual Leader	.59	University Faculty Member	.61
University Faculty Member	.57	Psychologist	.59
University Administrator	.53	Community Service Director	.59
Rehabilitation Counselor	.51	Rehabilitation Counselor	.58
Technical Support Specialist	.22	Accountant	.18
Computer Programmer	.21	Engineer	.17
Bartender	.20	Computer/Mathematics Manager	.17
Loan Officer/Counselor	.18	Operations Manager	.17
Auditor	.12	Financial Analyst	.17
Business/Finance Supervisor	.08	Computer Programmer	.16
Administrative Assistant	.01	Business/Finance Supervisor	.15
Customer Service Representative	.00	Computer Systems Analyst	.13
Financial Manager	.00	Network Administrator	.13
Accountant	-.12	Financial Manager	.08

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.5 • Ten Highest and Lowest Correlations Between Social Theme and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Elementary School Teacher	.87	Elementary School Teacher	.89
Rehabilitation Counselor	.86	Community Service Director	.89
Secondary School Teacher	.85	Rehabilitation Counselor	.88
Social Worker	.84	Secondary School Teacher	.87
Special Education Teacher	.82	Middle School Teacher	.87
Middle School Teacher	.81	Religious/Spiritual Leader	.86
Religious/Spiritual Leader	.79	Instructional Coordinator	.85
Career Counselor	.75	University Administrator	.80
University Administrator	.72	Career Counselor	.80
Instructional Coordinator	.69	Customer Service Representative	.78
Psychologist	.34	Editor	.40
Computer/Mathematics Manager	.33	Financial Manager	.35
Technical Support Specialist	.26	Computer/Mathematics Manager	.34
Engineer	.21	Technical Support Specialist	.34
Financial Manager	.19	Computer & IS Manager	.32
Accountant	.16	Computer Programmer	.20
Software Developer	.13	Engineer	.20
Computer Programmer	.11	Computer Systems Analyst	.20
Graphic Designer	.11	Software Developer	.20
Network Administrator	.10	Network Administrator	.13

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.6 • Ten Highest and Lowest Correlations Between Enterprising Theme and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Realtor	.93	Wholesale Sales Representative	.93
Wholesale Sales Representative	.91	Securities Sales Agent	.91
Sales Manager	.88	Sales Manager	.89
Securities Sales Agent	.88	Technical Sales Representative	.88
Technical Sales Representative	.87	Operations Manager	.87
Personal Financial Advisor	.82	Top Executive, Business/Finance	.87
Marketing Manager	.82	Loan Officer/Counselor	.86
Top Executive, Business/Finance	.80	Marketing Manager	.85
Operations Manager	.78	Personal Financial Advisor	.82
Human Resources Manager	.74	Business/Finance Supervisor	.78
Middle School Teacher	.21	Engineer	.19
Software Developer	.20	Computer Systems Analyst	.17
Graphic Designer	.20	Software Developer	.13
Special Education Teacher	.18	Mental Health Counselor	.13
Registered Nurse	.17	University Faculty Member	.12
Computer Programmer	.16	Psychologist	.12
Network Administrator	.16	Editor	.11
University Faculty Member	.13	Network Administrator	.08
Psychologist	.11	Computer Programmer	.07
Mental Health Counselor	.09	Social Worker	-.08

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.7 • Ten Highest and Lowest Correlations Between Conventional Theme and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Accountant	.80	Accountant	.77
Auditor	.76	Auditor	.76
Financial Manager	.75	Financial Manager	.75
Technical Support Specialist	.75	Business/Finance Supervisor	.73
Administrative Assistant	.70	Computer/Mathematics Manager	.71
Software Developer	.69	Computer Systems Analyst	.68
Business/Finance Supervisor	.68	Financial Analyst	.67
Computer/Mathematics Manager	.66	Computer & IS Manager	.66
Computer Programmer	.66	Technical Support Specialist	.63
Customer Service Representative	.64	Computer Programmer	.61
Graphic Designer	.03	Rehabilitation Counselor	.24
Secondary School Teacher	.02	Elementary School Teacher	.23
Career Counselor	-.02	University Administrator	.19
Social Worker	-.02	Attorney	.18
Attorney	-.06	Arts/Entertainment Manager	.18
Middle School Teacher	-.08	Career Counselor	.11
Psychologist	-.09	Editor	.05
Special Education Teacher	-.11	Bartender	.02
Bartender	-.17	Social Worker	-.28
Mental Health Counselor	-.51	Mental Health Counselor	-.34

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Correlations Between the BISs and the OSs

Tables 4.8–4.37 illustrate the relationship between each of the Basic Interest Scales (BISs) and the new, updated, and revised OSs. The tables show the BISs and the 10 highest-correlating and 10 lowest-correlating

OSs, separately for women and men. These correlations can help us examine the validity and provide an overview of the occupational meaning of each BIS. For example, as we might expect, there is a strong positive relationship between Rehabilitation Counselor and the Counseling BIS. Please refer to the *Strong* manual (Figures 4.1–4.30) for correlations with existing OSs.

Table 4.8 • Ten Highest and Lowest Correlations Between Mechanics & Construction BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Engineer	.77	Engineer	.80
Network Administrator	.75	Network Administrator	.70
Computer Programmer	.71	Computer & IS Manager	.69
Technical Support Specialist	.69	Software Developer	.68
Software Developer	.68	Computer Programmer	.63
Graphic Designer	.60	Computer/Mathematics Manager	.62
Computer/Mathematics Manager	.43	Computer Systems Analyst	.61
Management Analyst	.43	Technical Support Specialist	.60
Arts/Entertainment Manager	.41	Auditor	.34
Registered Nurse	.41	Accountant	.31
Administrative Assistant	.10	Elementary School Teacher	.03
Loan Officer/Counselor	.08	Human Resources Manager	.02
Secondary School Teacher	.03	Training & Development Specialist	.01
Elementary School Teacher	.00	Attorney	.00
Middle School Teacher	-.03	Bartender	-.02
Social Worker	-.05	Human Resources Specialist	-.03
Bartender	-.06	University Administrator	-.09
Career Counselor	-.06	Career Counselor	-.11
Special Education Teacher	-.09	Social Worker	-.29
Mental Health Counselor	-.28	Mental Health Counselor	-.36

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.9 • Ten Highest and Lowest Correlations Between Computer Hardware & Electronics BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Technical Support Specialist	.89	Technical Support Specialist	.89
Computer Programmer	.85	Computer Systems Analyst	.89
Network Administrator	.84	Network Administrator	.87
Software Developer	.83	Computer & IS Manager	.87
Computer/Mathematics Manager	.67	Software Developer	.83
Engineer	.64	Computer Programmer	.79
Accountant	.50	Computer/Mathematics Manager	.78
Financial Manager	.47	Engineer	.69
Auditor	.44	Auditor	.31
Management Analyst	.44	Accountant	.28
Marketing Manager	-.06	Marketing Manager	-.07
Elementary School Teacher	-.06	Human Resources Manager	-.09
Attorney	-.12	Loan Officer/Counselor	-.12
Secondary School Teacher	-.16	Human Resources Specialist	-.13
Middle School Teacher	-.20	University Administrator	-.19
Social Worker	-.21	Attorney	-.21
Special Education Teacher	-.23	Bartender	-.25
Career Counselor	-.23	Career Counselor	-.25
Bartender	-.43	Social Worker	-.41
Mental Health Counselor	-.61	Mental Health Counselor	-.57

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.10 • Ten Highest and Lowest Correlations Between Military BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Registered Nurse	.39	Engineer	.40
Engineer	.39	Computer & IS Manager	.38
Technical Support Specialist	.38	Computer/Mathematics Manager	.36
Network Administrator	.35	Software Developer	.34
Computer Programmer	.33	Network Administrator	.34
Software Developer	.31	Technical Support Specialist	.32
Technical Sales Representative	.31	Auditor	.30
Computer/Mathematics Manager	.31	Computer Systems Analyst	.30
Sales Manager	.27	Operations Manager	.29
Top Executive, Business/Finance	.27	Business/Finance Supervisor	.29
Secondary School Teacher	.14	Training & Development Specialist	.16
Marketing Manager	.13	Human Resources Specialist	.16
Graphic Designer	.12	Arts/Entertainment Manager	.12
Editor	.12	Bartender	.11
Elementary School Teacher	.11	University Administrator	.11
Middle School Teacher	.11	University Faculty Member	.09
Social Worker	.09	Career Counselor	.08
Special Education Teacher	.08	Editor	.04
Career Counselor	.07	Social Worker	-.02
Mental Health Counselor	-.08	Mental Health Counselor	-.05

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.11 • Ten Highest and Lowest Correlations Between Protective Services BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Registered Nurse	.53	Computer & IS Manager	.37
Engineer	.39	Engineer	.37
Technical Sales Representative	.38	Technical Support Specialist	.36
Technical Support Specialist	.37	Network Administrator	.35
Network Administrator	.33	Computer/Mathematics Manager	.34
Computer Programmer	.31	Software Developer	.32
Software Developer	.29	Customer Service Representative	.31
Customer Service Representative	.28	Middle School Teacher	.31
Realtor	.28	Technical Sales Representative	.31
Bartender	.27	Computer Systems Analyst	.30
Editor	.15	Arts/Entertainment Manager	.19
Social Worker	.15	Marketing Manager	.18
Religious/Spiritual Leader	.14	Training & Development Specialist	.17
Accountant	.14	Human Resources Specialist	.17
Special Education Teacher	.14	Career Counselor	.14
Training & Development Specialist	.13	University Administrator	.13
Financial Manager	.13	University Faculty Member	.06
Loan Officer/Counselor	.12	Editor	.05
Career Counselor	.10	Social Worker	.05
Mental Health Counselor	-.01	Mental Health Counselor	.02

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.12 • Ten Highest and Lowest Correlations Between Nature & Agriculture BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Graphic Designer	.54	Engineer	.41
Registered Nurse	.47	Arts/Entertainment Manager	.33
Engineer	.45	Computer & IS Manager	.32
Editor	.40	Rehabilitation Counselor	.32
Arts/Entertainment Manager	.39	Software Developer	.31
Network Administrator	.37	Network Administrator	.31
Technical Support Specialist	.37	Psychologist	.30
University Faculty Member	.36	Technical Support Specialist	.30
Psychologist	.34	Community Service Director	.29
Computer Programmer	.33	Computer/Mathematics Manager	.28
Human Resources Specialist	.08	Career Counselor	.17
Personal Financial Advisor	.08	Operations Manager	.17
Financial Manager	.06	Human Resources Manager	.16
Auditor	.06	University Administrator	.16
Accountant	.04	Top Executive, Business/Finance	.16
Mental Health Counselor	.04	Marketing Manager	.16
Customer Service Representative	.04	Financial Manager	.15
Business/Finance Supervisor	.03	Human Resources Specialist	.14
Administrative Assistant	.00	Social Worker	.09
Loan Officer/Counselor	.00	Mental Health Counselor	.05

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.13 • Ten Highest and Lowest Correlations Between Athletics BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Bartender	.57	Middle School Teacher	.61
Technical Sales Representative	.50	Personal Financial Advisor	.60
Realtor	.42	Technical Sales Representative	.57
Wholesale Sales Representative	.40	Financial Analyst	.55
Registered Nurse	.36	Loan Officer/Counselor	.51
Sales Manager	.36	Accountant	.49
Middle School Teacher	.35	Wholesale Sales Representative	.49
Engineer	.35	Elementary School Teacher	.48
Secondary School Teacher	.34	Bartender	.45
Securities Sales Agent	.33	Sales Manager	.43
Administrative Assistant	.20	Psychologist	.09
Career Counselor	.20	Computer & IS Manager	.09
Computer Programmer	.20	Engineer	.07
University Faculty Member	.18	Technical Support Specialist	.05
Psychologist	.18	Software Developer	.04
Financial Manager	.17	University Faculty Member	.04
Graphic Designer	.15	Computer Systems Analyst	.03
Editor	.15	Editor	.01
Accountant	.15	Computer Programmer	.01
Mental Health Counselor	.07	Network Administrator	.00

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.14 • Ten Highest and Lowest Correlations Between Science BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Engineer	.76	Engineer	.78
Registered Nurse	.70	Software Developer	.72
Network Administrator	.68	Network Administrator	.71
Software Developer	.64	Computer Programmer	.69
Computer Programmer	.63	Psychologist	.64
University Faculty Member	.59	Computer/Mathematics Manager	.59
Psychologist	.52	Technical Support Specialist	.55
Technical Support Specialist	.51	Computer Systems Analyst	.54
Graphic Designer	.42	Computer & IS Manager	.53
Editor	.36	University Faculty Member	.50
Marketing Manager	.07	Marketing Manager	.09
Middle School Teacher	.06	Human Resources Manager	.08
Social Worker	.06	Career Counselor	.05
Elementary School Teacher	.06	Wholesale Sales Representative	.05
Administrative Assistant	.06	Technical Sales Representative	.04
Special Education Teacher	.03	Human Resources Specialist	.04
Career Counselor	.02	Loan Officer/Counselor	.00
Loan Officer/Counselor	.00	Social Worker	-.04
Bartender	-.01	Bartender	-.05
Mental Health Counselor	-.10	Mental Health Counselor	-.20

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.15 • Ten Highest and Lowest Correlations Between Research BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Engineer	.75	Psychologist	.74
University Faculty Member	.73	Engineer	.73
Management Analyst	.70	Software Developer	.71
Computer Programmer	.66	Computer/Mathematics Manager	.70
Software Developer	.66	Computer Programmer	.70
Network Administrator	.65	University Faculty Member	.69
Psychologist	.63	Network Administrator	.65
Computer/Mathematics Manager	.59	Auditor	.64
Technical Support Specialist	.56	Management Analyst	.64
Auditor	.53	Computer Systems Analyst	.63
Career Counselor	.25	Wholesale Sales Representative	.31
Secondary School Teacher	.24	Administrative Assistant	.31
Social Worker	.19	Middle School Teacher	.26
Administrative Assistant	.19	Technical Sales Representative	.24
Customer Service Representative	.16	Loan Officer/Counselor	.23
Elementary School Teacher	.12	Career Counselor	.23
Middle School Teacher	.06	Elementary School Teacher	.22
Special Education Teacher	.03	Bartender	.00
Mental Health Counselor	-.09	Social Worker	-.10
Bartender	-.09	Mental Health Counselor	-.18

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.16 • Ten Highest and Lowest Correlations Between Medical Science BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Registered Nurse	.84	Psychologist	.57
Engineer	.51	Engineer	.57
University Faculty Member	.45	Software Developer	.52
Network Administrator	.42	Computer/Mathematics Manager	.51
Software Developer	.41	Network Administrator	.50
Psychologist	.41	Rehabilitation Counselor	.49
Computer Programmer	.41	Computer Programmer	.49
Technical Support Specialist	.39	Technical Support Specialist	.46
Rehabilitation Counselor	.37	Computer & IS Manager	.45
Technical Sales Representative	.35	University Faculty Member	.44
Human Resources Manager	.17	Top Executive, Business/Finance	.28
University Administrator	.16	Technical Sales Representative	.27
Business/Finance Supervisor	.14	Career Counselor	.25
Human Resources Specialist	.14	Wholesale Sales Representative	.25
Personal Financial Advisor	.13	Marketing Manager	.24
Career Counselor	.12	Human Resources Specialist	.24
Training & Development Specialist	.10	Loan Officer/Counselor	.23
Marketing Manager	.10	Bartender	.19
Loan Officer/Counselor	.04	Social Worker	.13
Mental Health Counselor	.03	Mental Health Counselor	.01

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.17 • Ten Highest and Lowest Correlations Between Mathematics BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Engineer	.78	Computer Programmer	.75
Software Developer	.75	Engineer	.74
Accountant	.74	Software Developer	.70
Computer Programmer	.73	Auditor	.65
Network Administrator	.70	Computer/Mathematics Manager	.62
Financial Manager	.69	Network Administrator	.58
Auditor	.62	Computer Systems Analyst	.56
Management Analyst	.51	Accountant	.52
Computer/Mathematics Manager	.49	Computer & IS Manager	.51
Technical Support Specialist	.49	Financial Manager	.50
Marketing Manager	.08	Rehabilitation Counselor	.09
Attorney	.07	Arts/Entertainment Manager	.08
Secondary School Teacher	.01	Elementary School Teacher	.08
Elementary School Teacher	.00	Technical Sales Representative	.07
Social Worker	-.04	Human Resources Specialist	.06
Career Counselor	-.05	University Administrator	.04
Middle School Teacher	-.05	Career Counselor	-.04
Special Education Teacher	-.10	Social Worker	-.23
Bartender	-.13	Bartender	-.28
Mental Health Counselor	-.35	Mental Health Counselor	-.44

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.18 • Ten Highest and Lowest Correlations Between Visual Arts & Design BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Graphic Designer	.90	Arts/Entertainment Manager	.83
Arts/Entertainment Manager	.82	Editor	.74
Editor	.79	Bartender	.49
Instructional Coordinator	.50	Instructional Coordinator	.48
Psychologist	.48	University Faculty Member	.47
University Faculty Member	.46	Psychologist	.46
Attorney	.43	Secondary School Teacher	.44
Engineer	.42	Community Service Director	.43
Technical Sales Representative	.42	Rehabilitation Counselor	.42
Religious/Spiritual Leader	.39	Administrative Assistant	.41
Auditor	.12	Sales Manager	.17
Special Education Teacher	.11	Auditor	.17
Mental Health Counselor	.10	Accountant	.17
Loan Officer/Counselor	.09	Personal Financial Advisor	.16
Bartender	.08	Social Worker	.16
Business/Finance Supervisor	.06	Loan Officer/Counselor	.14
Financial Manager	.05	Financial Analyst	.14
Accountant	-.03	Operations Manager	.12
Administrative Assistant	-.03	Business/Finance Supervisor	.12
Customer Service Representative	-.03	Financial Manager	.08

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.19 • Ten Highest and Lowest Correlations Between Performing Arts BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Editor	.71	Arts/Entertainment Manager	.80
Arts/Entertainment Manager	.70	Editor	.74
Instructional Coordinator	.59	Bartender	.63
Religious/Spiritual Leader	.57	Instructional Coordinator	.60
Attorney	.55	Secondary School Teacher	.60
Graphic Designer	.54	Community Service Director	.53
Psychologist	.52	Training & Development Specialist	.52
Technical Sales Representative	.48	Rehabilitation Counselor	.51
University Administrator	.48	Religious/Spiritual Leader	.50
University Faculty Member	.46	Attorney	.50
Network Administrator	.17	Financial Analyst	.17
Software Developer	.14	Accountant	.17
Computer Programmer	.12	Operations Manager	.17
Technical Support Specialist	.12	Computer/Mathematics Manager	.16
Auditor	.11	Business/Finance Supervisor	.14
Business/Finance Supervisor	.10	Computer Programmer	.14
Administrative Assistant	.05	Engineer	.13
Customer Service Representative	.03	Computer Systems Analyst	.12
Financial Manager	.01	Network Administrator	.11
Accountant	-.10	Financial Manager	.08

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.20 • Ten Highest and Lowest Correlations Between Writing & Mass Communication BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Editor	.85	Editor	.84
Attorney	.76	Attorney	.78
Arts/Entertainment Manager	.74	Arts/Entertainment Manager	.72
Instructional Coordinator	.70	University Faculty Member	.71
Psychologist	.60	Training & Development Specialist	.70
University Administrator	.59	Psychologist	.69
University Faculty Member	.59	Secondary School Teacher	.66
Religious/Spiritual Leader	.57	Instructional Coordinator	.63
Rehabilitation Counselor	.56	University Administrator	.60
Training & Development Specialist	.51	Rehabilitation Counselor	.58
Technical Support Specialist	.20	Business/Finance Supervisor	.26
Business/Finance Supervisor	.20	Financial Manager	.21
Network Administrator	.19	Computer/Mathematics Manager	.19
Software Developer	.19	Technical Support Specialist	.16
Computer Programmer	.18	Computer & IS Manager	.15
Bartender	.10	Software Developer	.15
Administrative Assistant	.10	Computer Programmer	.13
Financial Manager	.08	Engineer	.13
Customer Service Representative	.06	Computer Systems Analyst	.12
Accountant	-.05	Network Administrator	.08

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.21 • Ten Highest and Lowest Correlations Between Culinary Arts BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Marketing Manager	.40	Bartender	.58
Arts/Entertainment Manager	.39	Technical Sales Representative	.49
Instructional Coordinator	.37	Arts/Entertainment Manager	.45
Technical Sales Representative	.36	Wholesale Sales Representative	.38
Wholesale Sales Representative	.34	Securities Sales Agent	.37
Graphic Designer	.34	Customer Service Representative	.37
Editor	.33	Instructional Coordinator	.36
Religious/Spiritual Leader	.33	Marketing Manager	.36
Realtor	.33	Community Service Director	.34
Bartender	.33	Top Executive, Business/Finance	.34
University Faculty Member	.15	Psychologist	.17
Customer Service Representative	.11	Financial Manager	.16
Administrative Assistant	.11	Mental Health Counselor	.16
Auditor	.10	University Faculty Member	.14
Technical Support Specialist	.08	Engineer	.13
Network Administrator	.07	Social Worker	.11
Computer Programmer	.06	Software Developer	.11
Software Developer	.05	Computer Systems Analyst	.10
Financial Manager	.05	Network Administrator	.09
Accountant	-.02	Computer Programmer	.06

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.22 • Ten Highest and Lowest Correlations Between Counseling & Helping BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Rehabilitation Counselor	.80	Rehabilitation Counselor	.86
Social Worker	.79	Community Service Director	.84
Religious/Spiritual Leader	.75	Religious/Spiritual Leader	.82
Secondary School Teacher	.74	Secondary School Teacher	.79
Special Education Teacher	.73	Career Counselor	.77
Elementary School Teacher	.72	Instructional Coordinator	.77
Career Counselor	.70	Elementary School Teacher	.76
Middle School Teacher	.66	University Administrator	.75
University Administrator	.62	Middle School Teacher	.71
Instructional Coordinator	.60	Customer Service Representative	.71
Computer/Mathematics Manager	.27	Financial Analyst	.33
Bartender	.24	Technical Support Specialist	.28
Technical Support Specialist	.20	Computer/Mathematics Manager	.27
Engineer	.14	Financial Manager	.26
Financial Manager	.11	Computer & IS Manager	.25
Software Developer	.08	Software Developer	.17
Computer Programmer	.07	Computer Programmer	.16
Network Administrator	.07	Engineer	.16
Accountant	.06	Computer Systems Analyst	.15
Graphic Designer	.06	Network Administrator	.10

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.23 • Ten Highest and Lowest Correlations Between Teaching & Education BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Elementary School Teacher	.89	Elementary School Teacher	.86
Middle School Teacher	.82	Middle School Teacher	.86
Special Education Teacher	.80	Secondary School Teacher	.82
Secondary School Teacher	.78	Community Service Director	.78
Social Worker	.77	Instructional Coordinator	.77
Rehabilitation Counselor	.72	Rehabilitation Counselor	.74
Religious/Spiritual Leader	.70	Religious/Spiritual Leader	.73
University Administrator	.66	University Administrator	.68
Instructional Coordinator	.63	Career Counselor	.66
Career Counselor	.61	Training & Development Specialist	.65
Bartender	.28	Loan Officer/Counselor	.32
Computer/Mathematics Manager	.25	Computer/Mathematics Manager	.30
Technical Support Specialist	.22	Technical Support Specialist	.30
Engineer	.20	Computer & IS Manager	.28
Graphic Designer	.19	Financial Manager	.27
Software Developer	.13	Computer Programmer	.21
Computer Programmer	.11	Engineer	.20
Financial Manager	.11	Software Developer	.20
Network Administrator	.11	Computer Systems Analyst	.18
Accountant	.08	Network Administrator	.14

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.24 • Ten Highest and Lowest Correlations Between Human Resources & Training BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Human Resources Specialist	.85	Human Resources Manager	.80
Training & Development Specialist	.82	Human Resources Specialist	.77
Human Resources Manager	.82	Training & Development Specialist	.75
Operations Manager	.79	Operations Manager	.73
Personal Financial Advisor	.77	Instructional Coordinator	.71
University Administrator	.76	Community Service Director	.71
Instructional Coordinator	.75	Top Executive, Business/Finance	.71
Business/Finance Supervisor	.74	Business/Finance Supervisor	.71
Securities Sales Agent	.72	Customer Service Representative	.71
Career Counselor	.71	Religious/Spiritual Leader	.69
Editor	.26	Mental Health Counselor	.33
Bartender	.24	Psychologist	.32
Technical Support Specialist	.23	Technical Support Specialist	.27
Registered Nurse	.21	Social Worker	.25
Psychologist	.20	Computer Systems Analyst	.20
Engineer	.18	Engineer	.17
Software Developer	.14	Software Developer	.17
Computer Programmer	.12	Editor	.15
Network Administrator	.10	Computer Programmer	.13
Graphic Designer	.00	Network Administrator	.11

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.25 • Ten Highest and Lowest Correlations Between Social Sciences BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Rehabilitation Counselor	.73	University Administrator	.77
University Administrator	.72	Community Service Director	.77
University Faculty Member	.70	Secondary School Teacher	.75
Instructional Coordinator	.69	Rehabilitation Counselor	.74
Psychologist	.68	Instructional Coordinator	.73
Religious/Spiritual Leader	.67	Training & Development Specialist	.73
Arts/Entertainment Manager	.65	Attorney	.72
Career Counselor	.63	Religious/Spiritual Leader	.71
Secondary School Teacher	.62	Career Counselor	.70
Human Resources Manager	.62	Psychologist	.70
Business/Finance Supervisor	.37	Financial Manager	.41
Software Developer	.34	Bartender	.41
Network Administrator	.33	Computer/Mathematics Manager	.37
Computer Programmer	.32	Computer & IS Manager	.32
Technical Support Specialist	.32	Technical Support Specialist	.31
Financial Manager	.29	Engineer	.29
Administrative Assistant	.21	Software Developer	.28
Accountant	.20	Computer Programmer	.25
Customer Service Representative	.20	Computer Systems Analyst	.24
Bartender	.16	Network Administrator	.19

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.26 • Ten Highest and Lowest Correlations Between Religion & Spirituality BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Religious/Spiritual Leader	.74	Religious/Spiritual Leader	.71
Special Education Teacher	.48	Elementary School Teacher	.53
Instructional Coordinator	.47	Rehabilitation Counselor	.49
Social Worker	.46	Training & Development Specialist	.48
Secondary School Teacher	.46	University Administrator	.48
Rehabilitation Counselor	.45	Secondary School Teacher	.47
Elementary School Teacher	.44	Administrative Assistant	.47
University Administrator	.43	Community Service Director	.47
Career Counselor	.43	Instructional Coordinator	.46
Middle School Teacher	.41	Career Counselor	.44
Computer/Mathematics Manager	.20	Loan Officer/Counselor	.18
Graphic Designer	.14	Computer/Mathematics Manager	.17
Technical Support Specialist	.14	Computer Programmer	.16
Bartender	.13	Financial Manager	.16
Engineer	.13	Computer & IS Manager	.15
Network Administrator	.08	Technical Support Specialist	.15
Software Developer	.08	Engineer	.12
Computer Programmer	.07	Software Developer	.12
Financial Manager	.06	Computer Systems Analyst	.10
Accountant	.02	Network Administrator	.06

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.27 • Ten Highest and Lowest Correlations Between Healthcare Services BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Registered Nurse	.73	Elementary School Teacher	.53
Customer Service Representative	.51	Rehabilitation Counselor	.53
Administrative Assistant	.34	Administrative Assistant	.52
Bartender	.33	Customer Service Representative	.51
Technical Support Specialist	.32	Middle School Teacher	.50
Middle School Teacher	.31	Community Service Director	.48
Rehabilitation Counselor	.31	Secondary School Teacher	.47
Special Education Teacher	.31	Instructional Coordinator	.42
Elementary School Teacher	.30	Technical Support Specialist	.41
Engineer	.27	Psychologist	.39
Human Resources Manager	.07	Operations Manager	.25
Mental Health Counselor	.07	Sales Manager	.25
Top Executive, Business/Finance	.07	Financial Analyst	.25
Financial Manager	.07	Securities Sales Agent	.24
Loan Officer/Counselor	.06	Top Executive, Business/Finance	.23
Arts/Entertainment Manager	.04	Loan Officer/Counselor	.23
Editor	.04	Financial Manager	.21
Training & Development Specialist	.03	Editor	.19
Attorney	.03	Marketing Manager	.19
Marketing Manager	.01	Mental Health Counselor	.18

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.28 • Ten Highest and Lowest Correlations Between Marketing & Advertising BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Realtor	.85	Wholesale Sales Representative	.86
Wholesale Sales Representative	.84	Technical Sales Representative	.82
Sales Manager	.80	Securities Sales Agent	.82
Technical Sales Representative	.79	Marketing Manager	.80
Marketing Manager	.79	Sales Manager	.79
Securities Sales Agent	.76	Top Executive, Business/Finance	.77
Personal Financial Advisor	.71	Loan Officer/Counselor	.76
Operations Manager	.69	Operations Manager	.76
Top Executive, Business/Finance	.69	Personal Financial Advisor	.71
Training & Development Specialist	.66	Human Resources Specialist	.71
Technical Support Specialist	.20	Technical Support Specialist	.17
Software Developer	.17	Mental Health Counselor	.16
Middle School Teacher	.15	University Faculty Member	.15
Computer Programmer	.15	Computer Systems Analyst	.14
Network Administrator	.14	Psychologist	.13
Special Education Teacher	.13	Engineer	.12
Registered Nurse	.13	Software Developer	.09
University Faculty Member	.12	Network Administrator	.05
Psychologist	.11	Computer Programmer	.04
Mental Health Counselor	.07	Social Worker	-.06

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.29 • Ten Highest and Lowest Correlations Between Sales BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Realtor	.78	Wholesale Sales Representative	.84
Securities Sales Agent	.75	Technical Sales Representative	.80
Technical Sales Representative	.74	Securities Sales Agent	.80
Wholesale Sales Representative	.73	Loan Officer/Counselor	.79
Sales Manager	.70	Sales Manager	.76
Personal Financial Advisor	.67	Personal Financial Advisor	.76
Loan Officer/Counselor	.60	Operations Manager	.71
Top Executive, Business/Finance	.57	Top Executive, Business/Finance	.69
Operations Manager	.56	Marketing Manager	.68
Business/Finance Supervisor	.56	Business/Finance Supervisor	.66
Computer Programmer	.21	Engineer	.18
Middle School Teacher	.20	Computer Systems Analyst	.16
Network Administrator	.19	Software Developer	.11
Registered Nurse	.18	Mental Health Counselor	.09
Special Education Teacher	.18	Computer Programmer	.09
Editor	.15	Network Administrator	.08
Graphic Designer	.11	University Faculty Member	.06
University Faculty Member	.11	Psychologist	.04
Psychologist	.02	Editor	.02
Mental Health Counselor	.00	Social Worker	-.09

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.30 • Ten Highest and Lowest Correlations Between Management BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Operations Manager	.82	Operations Manager	.84
Business/Finance Supervisor	.78	Business/Finance Supervisor	.83
Securities Sales Agent	.75	Top Executive, Business/Finance	.76
Top Executive, Business/Finance	.74	Sales Manager	.74
Human Resources Specialist	.74	Securities Sales Agent	.72
Human Resources Manager	.72	Wholesale Sales Representative	.71
Personal Financial Advisor	.72	Human Resources Manager	.68
Training & Development Specialist	.69	Accountant	.68
Sales Manager	.68	Management Analyst	.68
Wholesale Sales Representative	.68	Marketing Manager	.68
Computer Programmer	.24	Computer Systems Analyst	.26
Network Administrator	.22	Software Developer	.22
Registered Nurse	.22	Arts/Entertainment Manager	.21
Bartender	.21	Network Administrator	.19
Special Education Teacher	.21	Psychologist	.19
University Faculty Member	.18	University Faculty Member	.18
Editor	.15	Computer Programmer	.17
Psychologist	.09	Mental Health Counselor	.06
Mental Health Counselor	.02	Editor	.01
Graphic Designer	-.01	Social Worker	-.03

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.31 • Ten Highest and Lowest Correlations Between Entrepreneurship BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Sales Manager	.65	Securities Sales Agent	.70
Realtor	.63	Sales Manager	.67
Securities Sales Agent	.62	Wholesale Sales Representative	.66
Wholesale Sales Representative	.61	Operations Manager	.66
Technical Sales Representative	.60	Top Executive, Business/Finance	.65
Operations Manager	.58	Marketing Manager	.62
Top Executive, Business/Finance	.58	Loan Officer/Counselor	.61
Marketing Manager	.54	Financial Analyst	.59
Management Analyst	.53	Personal Financial Advisor	.59
Personal Financial Advisor	.52	Technical Sales Representative	.59
Customer Service Representative	.16	Career Counselor	.19
Social Worker	.14	Network Administrator	.18
Elementary School Teacher	.11	Administrative Assistant	.16
Bartender	.10	Computer Programmer	.13
Registered Nurse	.08	Psychologist	.05
Psychologist	.05	Elementary School Teacher	.04
University Faculty Member	.00	Editor	.04
Middle School Teacher	-.02	University Faculty Member	-.03
Special Education Teacher	-.03	Mental Health Counselor	-.09
Mental Health Counselor	-.08	Social Worker	-.27

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.32 • Ten Highest and Lowest Correlations Between Politics & Public Speaking BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Attorney	.81	Marketing Manager	.76
Top Executive, Business/Finance	.74	Top Executive, Business/Finance	.75
Human Resources Manager	.71	Attorney	.75
Sales Manager	.69	Management Analyst	.71
Training & Development Specialist	.68	Human Resources Manager	.71
University Administrator	.68	Sales Manager	.71
Marketing Manager	.67	Human Resources Specialist	.70
Wholesale Sales Representative	.66	Training & Development Specialist	.70
Instructional Coordinator	.66	Operations Manager	.68
Technical Sales Representative	.65	Securities Sales Agent	.66
Bartender	.24	Administrative Assistant	.32
Registered Nurse	.22	Mental Health Counselor	.25
Software Developer	.17	Computer & IS Manager	.23
Administrative Assistant	.17	Engineer	.17
Network Administrator	.16	Social Worker	.16
Computer Programmer	.14	Software Developer	.14
Graphic Designer	.14	Technical Support Specialist	.12
Accountant	.13	Computer Systems Analyst	.11
Technical Support Specialist	.13	Computer Programmer	.09
Customer Service Representative	.11	Network Administrator	.07

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.33 • Ten Highest and Lowest Correlations Between Law BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Attorney	.61	Attorney	.69
Top Executive, Business/Finance	.55	Auditor	.63
Human Resources Manager	.50	Sales Manager	.63
Sales Manager	.50	Top Executive, Business/Finance	.62
Technical Sales Representative	.48	Human Resources Manager	.62
Operations Manager	.47	Personal Financial Advisor	.62
Securities Sales Agent	.47	Management Analyst	.59
Loan Officer/Counselor	.45	Operations Manager	.59
Auditor	.45	Business/Finance Supervisor	.58
Realtor	.43	Securities Sales Agent	.58
Network Administrator	.22	Computer & IS Manager	.29
Technical Support Specialist	.22	Engineer	.29
Administrative Assistant	.21	Software Developer	.25
Customer Service Representative	.20	Editor	.24
Elementary School Teacher	.19	Technical Support Specialist	.22
Middle School Teacher	.18	Computer Systems Analyst	.21
Bartender	.16	Computer Programmer	.20
Special Education Teacher	.14	Network Administrator	.19
Mental Health Counselor	.09	Mental Health Counselor	.14
Graphic Designer	.01	Social Worker	.09

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.34 • Ten Highest and Lowest Correlations Between Office Management BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Administrative Assistant	.83	Customer Service Representative	.69
Customer Service Representative	.77	Administrative Assistant	.67
Business/Finance Supervisor	.59	Business/Finance Supervisor	.61
Accountant	.57	Accountant	.59
Auditor	.55	Auditor	.53
Technical Support Specialist	.51	Financial Manager	.51
Financial Manager	.51	Wholesale Sales Representative	.48
Computer/Mathematics Manager	.43	Management Analyst	.48
Securities Sales Agent	.40	Operations Manager	.47
Operations Manager	.39	Financial Analyst	.47
Registered Nurse	.06	University Administrator	.26
Special Education Teacher	.05	Career Counselor	.26
Bartender	-.01	University Faculty Member	.25
Arts/Entertainment Manager	-.02	Psychologist	.21
University Faculty Member	-.02	Arts/Entertainment Manager	.20
Editor	-.04	Attorney	.18
Graphic Designer	-.11	Bartender	.13
Attorney	-.13	Editor	.06
Psychologist	-.26	Social Worker	-.02
Mental Health Counselor	-.32	Mental Health Counselor	-.06

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.35 • Ten Highest and Lowest Correlations Between Taxes & Accounting BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Accountant	.89	Auditor	.79
Financial Manager	.88	Financial Manager	.76
Auditor	.76	Accountant	.74
Software Developer	.66	Financial Analyst	.66
Computer Programmer	.62	Computer Programmer	.61
Engineer	.61	Business/Finance Supervisor	.61
Network Administrator	.57	Computer/Mathematics Manager	.60
Business/Finance Supervisor	.56	Engineer	.58
Management Analyst	.52	Management Analyst	.57
Computer/Mathematics Manager	.52	Software Developer	.55
Secondary School Teacher	-.04	Rehabilitation Counselor	.12
Attorney	-.05	Secondary School Teacher	.11
Elementary School Teacher	-.05	Elementary School Teacher	.10
Graphic Designer	-.05	University Administrator	.10
Career Counselor	-.07	Arts/Entertainment Manager	.03
Social Worker	-.07	Career Counselor	.03
Middle School Teacher	-.13	Editor	-.03
Bartender	-.14	Bartender	-.18
Special Education Teacher	-.16	Social Worker	-.29
Mental Health Counselor	-.46	Mental Health Counselor	-.40

Note: $N = 2,250$ (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.36 • Ten Highest and Lowest Correlations Between Programming & Information Systems BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Technical Support Specialist	.84	Computer Systems Analyst	.87
Software Developer	.79	Computer & IS Manager	.82
Computer Programmer	.79	Technical Support Specialist	.82
Network Administrator	.77	Computer/Mathematics Manager	.80
Computer/Mathematics Manager	.71	Network Administrator	.79
Engineer	.55	Software Developer	.79
Management Analyst	.49	Computer Programmer	.78
Accountant	.48	Engineer	.59
Financial Manager	.48	Auditor	.41
Auditor	.47	Accountant	.37
Loan Officer/Counselor	.03	Elementary School Teacher	.05
Elementary School Teacher	-.03	Human Resources Manager	.04
Attorney	-.03	Human Resources Specialist	.02
Secondary School Teacher	-.10	Loan Officer/Counselor	-.02
Career Counselor	-.14	Attorney	-.02
Social Worker	-.15	University Administrator	-.03
Middle School Teacher	-.18	Career Counselor	-.14
Special Education Teacher	-.23	Bartender	-.14
Bartender	-.48	Social Worker	-.41
Mental Health Counselor	-.58	Mental Health Counselor	-.54

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.37 • Ten Highest and Lowest Correlations Between Finance & Investing BIS and OS Scores for Women and Men in the GRS

Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
Financial Manager	.73	Financial Manager	.86
Sales Manager	.72	Financial Analyst	.83
Auditor	.71	Auditor	.78
Securities Sales Agent	.69	Accountant	.78
Management Analyst	.68	Personal Financial Advisor	.77
Top Executive, Business/Finance	.66	Sales Manager	.77
Realtor	.64	Securities Sales Agent	.76
Accountant	.64	Business/Finance Supervisor	.75
Business/Finance Supervisor	.63	Operations Manager	.73
Operations Manager	.63	Loan Officer/Counselor	.73
Registered Nurse	.17	Bartender	.16
Career Counselor	.14	Psychologist	.15
Secondary School Teacher	.12	Career Counselor	.15
Graphic Designer	.12	Administrative Assistant	.14
Social Worker	.05	Arts/Entertainment Manager	.12
Bartender	.03	University Faculty Member	.10
Elementary School Teacher	-.02	Elementary School Teacher	.06
Middle School Teacher	-.11	Editor	-.04
Special Education Teacher	-.14	Mental Health Counselor	-.23
Mental Health Counselor	-.27	Social Worker	-.33

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Correlations Between the PSSs and the OSs

Tables 4.38–4.42 illustrate the relationship between each of the Personal Style Scales (PSSs) and the new, updated, and revised OSs. The tables show the PSSs and the 10 highest-correlating and 10 lowest-correlating OSs, separately for women and men, and provide support for the validity of the OSs. For example, the Top Executive, Business/Finance scales are positively corre-

lated with the Leadership Style PSS, suggesting that top executives score toward the “Directs others” pole. In contrast, the Network Administrator scales are negatively correlated with the Work Style PSS, suggesting that network administrators score toward the “Works with ideas/data/things” pole of the PSS. These two results suit what is known about work characteristics of top executives and network administrators. Please refer to the *Strong* manual (Figures 6.1–6.5) for correlations with existing OSs.

Table 4.38 • Ten Highest and Lowest Correlations Between Work Style PSS and OS Scores for Women and Men in the GRS

Work Style PSS	Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
“Works with people” pole	Elementary School Teacher	.72	Career Counselor	.70
	Special Education Teacher	.69	Middle School Teacher	.70
	Social Worker	.68	Human Resources Specialist	.68
	Secondary School Teacher	.68	Elementary School Teacher	.68
	Middle School Teacher	.67	Human Resources Manager	.65
	Career Counselor	.66	University Administrator	.64
	Rehabilitation Counselor	.56	Mental Health Counselor	.63
	Human Resources Specialist	.55	Religious/Spiritual Leader	.60
	University Administrator	.54	Customer Service Representative	.60
	Training & Development Specialist	.54	Secondary School Teacher	.60
“Works with ideas/data/things” pole	Registered Nurse	–.02	University Faculty Member	.11
	Accountant	–.06	Psychologist	.02
	University Faculty Member	–.06	Computer/Mathematics Manager	–.16
	Psychologist	–.10	Technical Support Specialist	–.18
	Graphic Designer	–.19	Computer & IS Manager	–.18
	Technical Support Specialist	–.19	Computer Systems Analyst	–.29
	Engineer	–.33	Computer Programmer	–.38
	Software Developer	–.36	Software Developer	–.40
	Computer Programmer	–.38	Engineer	–.42
	Network Administrator	–.42	Network Administrator	–.45

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.39 • Ten Highest and Lowest Correlations Between Learning Environment PSS and OS Scores for Women and Men in the GRS

Learning Environment PSS	Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
"Academic" pole	Psychologist	.78	Editor	.72
	Editor	.78	University Faculty Member	.70
	Arts/Entertainment Manager	.75	Attorney	.70
	Attorney	.74	Psychologist	.67
	Instructional Coordinator	.71	Training & Development Specialist	.67
	University Faculty Member	.70	University Administrator	.65
	University Administrator	.68	Instructional Coordinator	.62
	Religious/Spiritual Leader	.63	Arts/Entertainment Manager	.60
	Training & Development Specialist	.56	Religious/Spiritual Leader	.59
	Rehabilitation Counselor	.55	Secondary School Teacher	.59
"Practical" pole	Network Administrator	.17	Technical Sales Representative	.18
	Software Developer	.17	Software Developer	.15
	Computer Programmer	.14	Wholesale Sales Representative	.14
	Business/Finance Supervisor	.10	Customer Service Representative	.13
	Financial Manager	.08	Engineer	.13
	Technical Support Specialist	.01	Computer Programmer	.12
	Bartender	.00	Computer & IS Manager	.11
	Accountant	-.10	Technical Support Specialist	.06
	Administrative Assistant	-.22	Computer Systems Analyst	.05
	Customer Service Representative	-.31	Network Administrator	.05

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.40 • Ten Highest and Lowest Correlations Between Leadership Style PSS and OS Scores for Women and Men in the GRS

Leadership Style PSS	Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
"Directs others" pole	Human Resources Manager	.84	Top Executive, Business/Finance	.85
	Top Executive, Business/Finance	.82	Marketing Manager	.81
	Training & Development Specialist	.82	Human Resources Manager	.79
	Marketing Manager	.80	Operations Manager	.78
	Operations Manager	.77	Human Resources Specialist	.77
	Personal Financial Advisor	.77	Sales Manager	.76
	Sales Manager	.76	Training & Development Specialist	.73
	Wholesale Sales Representative	.76	Securities Sales Agent	.73
	University Administrator	.75	Management Analyst	.69
	Instructional Coordinator	.73	Wholesale Sales Representative	.67
"Leads by example" pole	Administrative Assistant	.28	Mental Health Counselor	.28
	Registered Nurse	.21	Computer & IS Manager	.28
	Customer Service Representative	.21	Editor	.25
	Engineer	.19	Engineer	.15
	Accountant	.11	Social Worker	.15
	Software Developer	.09	Technical Support Specialist	.14
	Technical Support Specialist	.09	Software Developer	.13
	Graphic Designer	.07	Computer Systems Analyst	.11
	Network Administrator	.07	Network Administrator	.05
	Computer Programmer	.06	Computer Programmer	.04

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.41 • Ten Highest and Lowest Correlations Between Risk Taking PSS and OS Scores for Women and Men in the GRS

Risk Taking PSS	Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
"Takes chances" pole	Technical Sales Representative	.58	Personal Financial Advisor	.58
	Sales Manager	.52	Sales Manager	.55
	Engineer	.51	Securities Sales Agent	.55
	Realtor	.50	Loan Officer/Counselor	.54
	Top Executive, Business/Finance	.49	Financial Analyst	.52
	Wholesale Sales Representative	.46	Wholesale Sales Representative	.51
	Computer/Mathematics Manager	.44	Technical Sales Representative	.51
	Network Administrator	.43	Operations Manager	.49
	Securities Sales Agent	.43	Accountant	.49
	Management Analyst	.41	Top Executive, Business/Finance	.47
"Plays it safe" pole	Religious/Spiritual Leader	.19	Religious/Spiritual Leader	.15
	Secondary School Teacher	.19	Elementary School Teacher	.14
	Career Counselor	.13	University Administrator	.13
	Customer Service Representative	.13	Psychologist	.13
	Social Worker	.11	Career Counselor	.11
	Administrative Assistant	.11	Administrative Assistant	.11
	Elementary School Teacher	.08	Editor	.02
	Middle School Teacher	.06	University Faculty Member	-.05
	Special Education Teacher	.00	Mental Health Counselor	-.08
	Mental Health Counselor	-.06	Social Worker	-.17

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Table 4.42 • Ten Highest and Lowest Correlations Between Team Orientation PSS and OS Scores for Women and Men in the GRS

Team Orientation PSS	Female Occupational Scale	Women <i>r</i>	Male Occupational Scale	Men <i>r</i>
"Accomplishes tasks as a team" pole	Human Resources Specialist	.70	Operations Manager	.56
	Business/Finance Supervisor	.64	Human Resources Manager	.56
	Operations Manager	.64	Top Executive, Business/Finance	.55
	Human Resources Manager	.60	Business/Finance Supervisor	.54
	Training & Development Specialist	.59	Human Resources Specialist	.53
	Personal Financial Advisor	.58	Management Analyst	.53
	Top Executive, Business/Finance	.56	Wholesale Sales Representative	.49
	University Administrator	.55	Marketing Manager	.48
	Management Analyst	.54	Training & Development Specialist	.48
	Computer/Mathematics Manager	.53	Sales Manager	.48
"Accomplishes tasks independently" pole	University Faculty Member	.20	Psychologist	.23
	Technical Support Specialist	.20	Software Developer	.23
	Accountant	.19	Arts/Entertainment Manager	.22
	Psychologist	.18	University Faculty Member	.21
	Editor	.16	Computer Systems Analyst	.20
	Mental Health Counselor	.15	Network Administrator	.18
	Software Developer	.14	Computer Programmer	.18
	Computer Programmer	.13	Mental Health Counselor	.13
	Network Administrator	.13	Social Worker	.12
	Graphic Designer	.03	Editor	.06

Note: *N* = 2,250 (1,125 women and 1,125 men). Ten highest correlations are shaded; 10 lowest correlations are not shaded.

Conclusion

The current update of the *Strong Interest Inventory* assessment's Occupational Scales was conducted to ensure that the instrument best reflects changes in the occupational world and in our society, thus maintaining the scientific soundness of the tool. This update resulted in the addition of 46 new scales, 36 updated scales, and 8 revised scales. Thirty of the 2004 *Strong* instrument scales were removed.

The updated *Strong* assessment now includes a total of 260 scales—the 90 new, updated, or revised scales along with 170 scales remaining from the 2004 OSs. This list of OSs meets the rigorous standards upheld by the instrument for both reliability and validity. The 260 existing, new, updated, and revised OSs provide clients and career professionals alike with a wide variety of career options to consider and can help users make informed decisions about their future.

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

The samples described in this appendix are those used to develop the current *Strong Interest Inventory*® Occupational Scales (OSs). This appendix serves as a replacement for the appendix in the 2005 *Strong* manual (Donnay et al., 2005).

For each sample, the column headed “N” indicates the number of people in the occupational group used to construct the scale. “Year Data Collected” indicates the year in which the occupational sample was completed. “Mean Age” provides the average age of the people in the sample. And “Mean Years Experience” provides the average number of years the people in the sample have worked in the occupation.

The column labeled “Composition” indicates the sources for the people who make up each occupational sample. This column also provides selected demographic data about the occupations. Among these data are educational background, typical work activities, areas of specialization, and types of businesses or institutions in which participants are employed.

The column labeled “O*NET Code(s)” offers, for each occupation, the O*NET code or codes most appropriate for that sample. These codes will help you and your client locate related occupations on the O*NET Web site, www.onetonline.org. The first two digits indicate which of the 23 very broad categories the occupation fits:

- 11 Management
- 13 Business and Financial Operations
- 15 Computer and Mathematical

- 17 Architecture and Engineering
- 19 Life, Physical, and Social Sciences
- 21 Community and Social Services
- 23 Legal
- 25 Education, Training, and Library
- 27 Arts, Design, Entertainment, Sports, and Media
- 29 Healthcare Practitioners and Technical
- 31 Healthcare Support
- 33 Protective Service
- 35 Food Preparation and Serving Related
- 37 Building and Grounds Cleaning and Maintenance
- 39 Personal Care and Service
- 41 Sales and Related
- 43 Office and Administrative Support
- 45 Farming, Fishing, and Forestry
- 47 Construction and Extraction
- 49 Installation, Maintenance, and Repair
- 51 Production
- 53 Transportation and Material Moving
- 55 Military Specific

The next four digits indicate a more specific division of work within the 23 broad categories. The last two digits, after the decimal point, locate a particular occupation within that division. The “Description” column will help you assist your clients in identifying the responsibilities, job tasks, work environments, and skills entailed in each of the occupations listed on the *Strong* Profile.

The last column, “Related Occupations,” is a list of jobs related to each of the Occupational Scale samples. This list will help you broaden your clients’ career exploration beyond the *Strong* Profile to find other occupations appropriate for their consideration.

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Accountant (Female)	372	2009	37.8	12.2	Sample collected from CPP commercial and research databases. 44% completed bachelor's degree, 12% master's degree, 1% professional degree.	13-2011.01	Analyze financial information and prepare financial reports to determine or maintain record of assets, liabilities, profit and loss, tax liability, or other financial activities within an organization.	Actuary Auditor Budget Analyst Controller Cost Estimator Credit Analyst Economist Revenue Agent Tax Collector Tax Examiner Treasurer
Accountant (Male)	119	2009	38.2	12.7	See women's sample above. 57% completed bachelor's degree, 23% master's degree, 5% professional degree, 1% doctorate.			
Actuary (Female)	642	1992	36.4	12.8	Members of American Academy of Actuaries. 70% completed bachelor's degree, 28% master's or professional degree.	15-2011.00	Analyze statistical data, such as mortality, accident, sickness, disability, and retirement rates and construct probability tables to forecast risk and liability for payment of future benefits. May ascertain premium rates required and cash reserves necessary to ensure payment of future benefits.	Accountant Assessor Cost Estimator Credit Analyst Economist Financial Analyst Insurance Underwriter Procurement Clerk Statistician Tax Preparer
Actuary (Male)	593	1992	42.0	18.0	See women's sample above. 62% completed bachelor's degree, 33% master's or professional degree.			
Administrative Assistant (Female)	1707	2003 and 2009	39.8	13.4	Sample collected from CPP commercial and research databases. A portion of the sample was taken from the 2004 <i>Strong</i> revision. 22% completed bachelor's degree, 4% master's degree, less than 1% professional degree, less than 1% doctorate.	43-6011.00	Provide high level administrative support by conducting research, preparing statistical reports, handling information requests, and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff.	Legal Secretary Library Technician Management Analyst Municipal Clerk Procurement Clerk Production, Planning, or Expediting Clerk Secretary, except Legal, Medical, or Executive
Administrative Assistant (Male)	147	2003 and 2009	40.2	11.2	See women's sample above. 31% completed bachelor's degree, 12% master's degree, 1% professional degree.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Advertising Account Manager (Female)	205	1992	36.3	12.1	From commercially compiled national listing. 70% completed bachelor's degree, 14% master's or professional degree. 84% worked for full-service advertising agency; 7% for small, specialized agency; 2% for direct marketing agency; 9% were self-employed.	11-2011.00	Plan and direct advertising policies and programs or produce collateral materials, such as posters, contests, coupons, or giveaways, to create extra interest in the purchase of a product or service for a department, for an entire organization, or on an account basis.	Art Director Education Administrator, Elementary or Secondary School Education Administrator, Postsecondary Health Educator
Advertising Account Manager (Male)	348	1992	47.0	21.7	See women's sample above. 63% completed bachelor's degree, 14% master's or professional degree. 75% worked for full-service advertising agency; 11% for small, specialized agency; 2% for direct marketing; 9% were self-employed.			Marketing Manager Public Relations Specialist Purchasing Agent or Buyer Sales Manager Wholesale or Retail Buyer
Architect (Female)	603	1993	39.3	14.4	Members of American Institute of Architects. 40% completed bachelor's degree, 56% master's or professional degree. Areas of specialization included public/institutional (34%), commercial (29%), residential (24%), industrial (2%).	17-1011.00	Plan and design structures such as private residences, office buildings, theaters, factories, and other structural property.	Civil Engineer Civil Engineering Technician Electrical Drafter Industrial Safety or Health Engineer Landscape Architect
Architect (Male)	560	1993	47.2	22.8	See women's sample above. 48% completed bachelor's degree, 43% master's or professional degree. Areas of specialization included public/institutional (41%), commercial (34%), residential (12%), industrial (4%).			Marine Architect Mechanical Engineer Mining or Geographical Engineer Set or Exhibit Designer
Art Teacher (Female)	360	1981	39.0	11.2	Members of National Art Association, secondary division. All were secondary school teachers. 41% completed bachelor's degree, 58% master's degree. 79% of sample spent minimum of 50% of time teaching; other activities included lesson preparation, grading, and administrative functions. Main areas of art included general, painting and drawing, sculpture, ceramics, print making, and weaving.	25-1121.00	Teach courses in drama, music, and the arts, including fine and applied art, such as painting and sculpture, or design and crafts.	Choreographer Commercial or Industrial Designer Fashion Designer Film or Video Editor Floral Designer Kindergarten Teacher Musician, Instrumental Set or Exhibit Designer
Art Teacher (Male)	303	1978	40.2	14.9	See women's sample above. All were secondary school teachers. 15% completed bachelor's degree, 64% master's degree, 19% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Artist (Female)	247	1979	44.4	17.0	Selected from <i>Who's Who in American Art</i> . 18% had taken art courses not leading to degree, 25% completed bachelor's degree, 42% master's degree. 58% were freelance artists, 15% were employed by educational institutions, 22% by combination of employers.	27-1013.00	Create original artwork using any of a wide variety of mediums and techniques, such as painting and sculpture.	Costume Attendant Film or Video Editor Floral Designer Graphic Designer Jeweler Makeup Artist, Theatrical or Performance Precious Metal Worker
Artist (Male)	213	1979	43.5	20.5	See women's sample above. 13% had taken art courses not leading to degree, 15% completed bachelor's degree, 55% master's degree. 39% were freelance artists, 39% were employed by educational institutions, 15% by combination of employers.			
Arts/ Entertainment Manager (Female)	104	2009	40.9	14.2	Sample collected from CPP commercial and research databases. 59% completed bachelor's degree, 17% master's degree, 2% doctorate.	No specific O*NET code	Plan, direct, coordinate operations, formulate policies, manage daily operations, and plan the use of materials and human resources as applied to individuals and companies in the areas of art, design, entertainment, sports, or media.	Agent or Business Manager of Artists, Performers, or Athletes Chief Executive Officer General Manager Program Director Talent Director Technical Operations Manager
Arts/ Entertainment Manager (Male)	98	2009	38.4	14.0	See women's sample above. 52% completed bachelor's degree, 10% master's degree, 1% professional degree, 1% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Athletic Trainer (Female)	242	1983	29.3	5.9	National sample of certified athletic trainers from National Athletic Trainers Association. 25% completed bachelor's degree, 73% master's degree, 2% doctorate. Employers included 4-year colleges (59%), high schools (22%), 2-year colleges (5%), professional athletic teams (1%), other (12%). 7% specialized in a particular sport. Major activities included evaluation and treatment of injuries (39%), covering practices and games (29%), combination (27%).	29-9091.00	Evaluate, advise, and treat athletes to assist recovery from injury, avoid injury, or maintain peak physical fitness.	Licensed Practical or Licensed Vocational Nurse Orthotist or Prosthetist Physical Therapist Recreational Therapist Respiratory Therapist Veterinary Assistant or Laboratory Animal Caretaker
Athletic Trainer (Male)	250	1983	32.5	9.4	See women's sample above. 30% completed bachelor's degree, 68% master's degree, 1% doctorate. Employers included 4-year colleges (59%), high schools (16%), professional athletic teams (9%), 2-year colleges (5%), combination (2%). 21% specialized in particular sport. Major activities included evaluation and treatment of injuries (48%), covering practices and games (24%), combination (25%).			
Attorney (Female)	174	2009	38.7	10.6	Sample collected from CPP commercial and research databases. 1% completed master's degree, 94% professional degree, 3% doctorate.	23-1011.00	Represent clients in criminal and civil litigation and other legal proceedings, draw up legal documents, and manage or advise clients on legal transactions. May specialize in a single area or may practice broadly in many areas of law.	Criminal Investigator or Special Agent Government Property Inspector and Investigator Insurance Adjuster, Examiner, or Investigator Judge, Magistrate Judge, or Magistrate Paralegal or Legal Assistant
Attorney (Male)	226	2009	42.0	14.1	See women's sample above. Less than 1% completed master's degree, 97% professional degree, 2% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Auditor (Female)	126	2009	36.0	9.6	Sample collected from CPP commercial and research databases. 44% completed bachelor's degree, 25% master's degree, 4% professional degree, 1% doctorate.	13-2011.02	Examine and analyze accounting records to determine financial status of establishment and prepare financial reports concerning operating procedures.	Accountant Budget Analyst Economist Financial Analyst Financial Manager, Branch or Department Personal Financial Advisor Purchasing Manager Treasurer or Controller
Auditor (Male)	114	2009	36.8	11.3	See women's sample above. 54% completed bachelor's degree, 31% master's degree, 9% professional degree, 1% doctorate.			
Automobile Mechanic (Female)	165	1993	34.5	10.7	List of automobile mechanics certified by National Institute for Automotive Service Excellence and commercially compiled list of automobile repair establishments. 18% had high school diploma, 17% attended trade/technical school in addition, 40% some college or associate degree, 13% completed bachelor's degree, 4% master's degree. 44% worked in independent repair shop, 20% in car dealership, 8% in tire dealership, 7% in specialty repair shop, 7% in fleet repair shop, balance in service stations, body shops, machine shops, and government agencies.	49-3023.01	Repair automobiles, trucks, buses, and other vehicles. Master mechanic repairs virtually any part on the vehicle or specializes in the transmission system.	Aircraft Mechanic or Service Technician Automotive Specialty Technician Engine or other Machine Assembler Farm Equipment Mechanic Industrial Machinery Mechanic Inspector, Tester, Sorter, Sampler, or Weigher
Automobile Mechanic (Male)	561	1993	38.7	18.0	See women's sample above. 22% had high school diploma, 29% attended trade/technical school in addition, 31% some college or associate degree, 5% completed bachelor's degree, 2% master's degree. 46% worked in car dealership, 23% in independent repair shop, 7% in tire dealership, balance in specialty repair shops, fleet repair shops, service stations, body shops, machine shops, and government agencies.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Bartender (Female)	118	2009	26.2	7.5	Sample collected from CPP commercial and research databases. 12% had high school diploma, 56% some college, 22% completed associate degree, 9% bachelor's degree.	35-3011.00	Mix and serve drinks to patrons, directly or through waitstaff.	Cashier Combined Food Preparation and Serving Worker, including Fast Food Counter or Rental Clerk
Bartender (Male)	60	2009	27.2	7.3	See women's sample above. 23% had high school diploma, 48% some college, 15% completed associate degree, 12% bachelor's degree.			Flight Attendant Food Preparation Worker Locker Room, Coatroom, or Dressing Room Attendant Transportation Attendant, except Fight Attendant or Baggage Porter Waiter/Waitress
Biologist (Female)	282	1992	46.8	17.9	Members of American Institute of Biological Sciences. 28% completed master's degree, 71% doctorate. 53% worked in 4-year colleges and universities, 8% in community colleges, 11% in federal government agencies, 8% in industry, 5% in schools, 5% in other nonprofit organizations. Major activities included teaching/training, technical writing, administration, basic research, and consulting.	19-1020.01	Research or study basic principles of plant and animal life, such as origin, relationship, development, anatomy, and functions.	Biochemist or Biophysicist Environmental Scientist or Specialist, including Health Microbiologist Soil or Plant Scientist Zoologist or Wildlife Biologist
Biologist (Male)	757	1992	50.0	22.1	See women's sample above. 15% completed master's degree, 85% doctorate. 59% worked in 4-year colleges and universities, 5% in community colleges, 9% in federal government agencies, 6% in industry, 4% in schools, 6% in other nonprofit organizations. Major activities included teaching/training, technical writing, basic research, administration, applied research, and consulting.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Broadcast Journalist (Female)	220	1983	32.4	7.8	Sample collected from stations listed in <i>Broadcasting Yearbook</i> and from responses to ads in <i>Inside Radio</i> and <i>Radio and Records</i> ; also members of American Women in Radio and Television, Inc. 23% had high school diploma, 57% completed bachelor's degree, 9% master's degree. 84% were employed by commercial station, 15% by public station. 56% were department heads. Major activities included on-the-air broadcasting (28%), programming (13%), sales (9%), research (7%), news gathering and reporting (6%), combination (26%), other (general management, production, and copyrighting functions, 9%).	27-3011.00	Talk on radio or television. May interview guests, act as master of ceremonies, read news flashes, identify station by giving call letters, or announce song title and artist.	Advertising Sales Agent Broadcast News Analyst Copy Writer Poet, Lyricist, or Creative Writer Reporter or Correspondent Talent Director
Broadcast Journalist (Male)	213	1983	34.2	12.8	See women's sample above. 26% had high school diploma, 53% completed bachelor's degree, 7% master's degree. All were broadcasters: 85% were employed by commercial station; 65% were department heads. Major activities included on-the-air broadcasting (30%), programming (21%), management and administration (8%), news gathering and writing (4%), sales (3%), combination (25%), other (3%).			
Business Education Teacher (Female)	576	1993	45.1	18.1	Members of National Business Education Association. 28% completed bachelor's degree, 64% master's or professional degree, 8% doctorate. 56% were employed in public schools, 30% in colleges or universities, 6% in private or parochial schools.	25-1011.00	Teach courses in business administration and management, such as accounting, finance, human resources, labor relations, marketing, and operations research.	Business Administration Teacher Business Communication Teacher Business Law Teacher
Business Education Teacher (Male)	545	1993	47.5	21.5	See women's sample above. 16% completed bachelor's degree, 61% master's or professional degree, 22% doctorate. 52% were employed in public schools, 36% in colleges or universities, 7% in private or parochial schools.			Business Management Teacher Finance Teacher Marketing Teacher

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Business/Finance Supervisor (Female)	220	2009	38.9	12.6	Sample collected from CPP commercial and research databases. 35% completed bachelor's degree, 11% master's degree, 1% professional degree.	No specific O*NET code	Plan, direct, coordinate operations, formulate policies, manage daily operations, and plan the use of materials and human resources as applied to individuals and companies in the areas of business and finance.	Branch Operations Manager Chief Executive Officer General Manager
Business/Finance Supervisor (Male)	125	2009	38.8	13.0	See women's sample above. 53% completed bachelor's degree, 13% master's degree, 2% professional degree, 2% doctorate.			Technical Operations Manager
Buyer (Female)	214	1983	35.4	8.8	Names from <i>The Salesman's Guide—Women's and Children's Wear Buyers</i> and <i>The Salesman's Guide—Men's and Boys' Wear Buyers</i> . 33% had high school diploma, 11% completed associate degree, 48% bachelor's degree. 46% were employed by department stores, 29% by specialty shops, 10% by chains. 81% bought for more than one department.	13-1022.00	Buy merchandise or commodities, other than farm products, for resale to consumers at the wholesale or retail level, including both durable and nondurable goods. Analyze past buying trends, sales records, price, and quality of merchandise to determine value and yield. Select, order, and authorize payment for merchandise according to contractual agreements. May conduct meetings with sales personnel and introduce new products.	Market Research Analyst Public Relations Specialist Sales Agent, Securities or Commodities Sales Representative, Wholesale or Manufacturing, Technical or Scientific Products
Buyer (Male)	219	1983	36.9	10.8	See women's sample above. 25% had high school diploma, 8% completed associate degree, 60% bachelor's degree, 7% master's degree. 40% were employed by department stores, 25% by specialty shops, 18% by chains. 96% bought for more than one department.			Sales Representative, Wholesale or Manufacturing, except Technical or Scientific Products
Career Counselor (Female)	426	2009	39.6	9.6	Sample collected from the American Counseling Association and CPP commercial and research databases. 25% completed bachelor's degree, 65% master's degree, 1% professional degree, 2% doctorate.	21-1012.00	Counsel individuals and provide group educational and vocational guidance services.	Child, Family, or School Social Worker Health Educator Probation Officer or Correctional Treatment Specialist
Career Counselor (Male)	104	2009	42.0	11.1	See women's sample above. 33% completed bachelor's degree, 50% master's degree, 1% professional degree, 5% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	<i>N</i>	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Carpenter (Female)	97	1984	31.4	4.7	Members of United Brotherhood of Carpenters and Joiners of America, and participants in Women in Trades Conference. 46% had high school diploma, 6% completed associate degree, 33% bachelor's degree, 8% master's degree. 39% were final-year apprentices, 34% were at journey level. 26% did mainly rough carpenter work, 5% finish, 64% combination. 36% of sample specialized in a particular area of carpentry. 91% of sample spent minimum of 50% of time doing manual labor. Other activities included reading blueprints, communicating with contractors, problem solving, and administrative functions.	47-2031.00	Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall and batt or roll insulation. Includes brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways to control the proper circulation of air through the passageways and to the working places.	Brickmason or Blockmason Cabinetmaker or Bench Carpenter Drywall or Ceiling Tile Installer Helper—Brickmason, Blockmason, Stonemason, or Tile or Marble Setter Helper—Carpenter Helper—Pipelayer, Plumber, Pipefitter, or Steamfitter Plumber Reinforcing Iron or Rebar Worker Stonemason Tile and Marble Setter
Carpenter (Male)	199	1983	27.3	4.6	Members of United Brotherhood of Carpenters and Joiners of America. 73% had high school diploma, 7% completed associate degree, 8% bachelor's degree, 2% other. 82% were final-year apprentices, 15% were at journey level. 18% did mainly rough carpentry, 21% finish, 53% combination. 30% of sample specialized in a particular area of carpentry. 62% of sample spent minimum of 75% of time doing manual labor. Other activities included reading blueprints, communicating with contractors, problem solving, and administrative functions.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Chef (Female)	106	1984	31.8	6.8	Members of American Culinary Federation and graduates of Johnson and Wales College in Providence, RI, and of the Culinary Institute, Hyde Park, NY. 6% had high school diploma, 14% attended trade or vocational school, 58% completed associate degree, 12% bachelor's degree, 1% master's degree. 21% were employed by restaurants, 16% by hotels, 11% by private clubs, 6% by catering services, 5% by educational institutions, 25% by combination, remainder by resorts, hospitals, or institutional firms. Major activities included food preparation (42%), supervision and training (15%), planning menus (3%), combination (33%).	35-1011.00	Direct the preparation, seasoning, and cooking of salads, soups, fish, meats, vegetables, desserts, or other foods. May plan and price menu items, order supplies, and keep records and accounts. May participate in cooking.	Cook, Fast Food Dietetic Technician First-Line Supervisor/Manager of Food Preparation or Serving Workers
Chef (Male)	296	1983	37.4	14.0	Members of American Culinary Federation. 17% had high school diploma, 33% attended trade or vocational school, 22% completed associate degree, 10% bachelor's degree, 3% master's degree. 25% were employed by restaurants, 21% by private clubs, 15% by hotels, 18% by combination, remainder by resorts, hospitals, educational institutions, caterers, industrial firms, or other. Major activities included supervision and training (30%), food preparation (22%), ordering food (3%), combination (40%).			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Chemist (Female)	271	1993	41.2	14.8	Members of American Chemical Society. 41% completed master's or professional degree, 59% doctorate. Major activities included teaching/training, management/supervision, applied research. 47% were employed by business/industry, 30% by educational institutions, 12% by government agencies.	19-2031.00	Conduct qualitative and quantitative chemical analyses or chemical experiments in laboratories for quality or process control or to develop new products or knowledge.	Chemical Plant or System Operator Chemical Technician Environmental Science or Protection Technician, including Health Food Science Technician Materials Scientist Soil or Plant Scientist
Chemist (Male)	304	1993	48.1	20.6	See women's sample above. 26% completed master's or professional degree, 74% doctorate. Major activities included teaching/training, management/supervision, applied research, and basic research. 59% were employed by business/industry, 22% by educational institutions, 7% by government agencies.			
Chiropractor (Female)	113	2003	42.4	12.3	Mailing lists of members of Minnesota Board of Chiropractic Examiners and Texas Chiropractic Association. 2% completed master's degree, 82% professional degree, 12% doctorate.	29-1011.00	Adjust spinal column and other articulations of the body to correct abnormalities of the human body believed to be caused by interference with the nervous system. Examine patient to determine nature and extent of disorder. Manipulate spine or other involved area. May utilize supplementary measures, such as exercise, rest, water, light, heat, and nutritional therapy.	Dentist, General Emergency Medical Technician or Paramedic Licensed Practical or Licensed Vocational Nurse Optometrist Orthodontist Physician Assistant Podiatrist Respiratory Therapist
Chiropractor (Male)	100	2003	46.3	18.3	See women's sample above. 1% completed master's degree, 90% professional degree, 7% doctorate, 2% other.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Community Service Director (Female)	418	1993	38.3	11.6	Listings obtained from Association of Professional Directors of YWCAs and YMCAs in United States; directors of agencies listed in United Way Directory of Human Services in Greenwich, CT; Denver, CO; Honolulu, HI; Des Moines, IA; Phoenix and Mesa, AZ; Columbus and Cincinnati, OH; Houston, TX; and Miami, FL. 4% had high school diploma, 14% some college or associate degree, 58% completed bachelor's degree, 22% master's or professional degree, 2% doctorate. Major activities included administration/supervision, member and community contact, budget planning, program planning, and fundraising.	11-9151.00	Plan, organize, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.	Education Administrator, Elementary or Secondary School First-Line Supervisor/Manager of Housekeeping or Janitorial Workers First-Line Supervisor/Manager of Office or Administrative Support Workers Food Service Manager Recreation Worker
Community Service Director (Male)	55	2009	39.2	11.5	Sample collected from CPP commercial and research databases. 42% completed bachelor's degree, 24% master's degree, 4% doctorate.			
Computer & IS Manager (Female)	62	2003	39.4	14.5	Sample collected from CPP database. 1% had some high school, 2% trade/technical training, 10% some college, 10% completed associate degree, 43% bachelor's degree, 34% master's degree.	11-3021.00	Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming.	Computer Programmer Computer Science Teacher, Postsecondary Computer Support Specialist
Computer & IS Manager (Male)	255	2009	41.9	15.6	Sample collected from CPP commercial and research databases. 41% completed bachelor's degree, 31% master's degree, less than 1% professional degree.			Librarian Mathematical Science Teacher, Postsecondary Medical or Health Services Manager Operations Research Analyst

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Computer Programmer (Female)	106	2009	39.5	12.9	Sample collected from CPP commercial and research databases. 46% completed bachelor's degree, 22% master's degree, 1% doctorate.	15-1131.00	Convert project specifications and statements of problems and procedures to detailed logical flow charts for coding into computer language. Develop and write computer programs to store, locate, and retrieve specific documents, data, and information. May program Web sites.	Computer, Automated Teller, or Office Machine Repairer Computer and Information Systems Manager Computer Operator Computer Science Teacher, Postsecondary Computer Support Specialist Computer Systems Analyst Numerical Tool or Process Control Programmer Operations Research Analyst
Computer Programmer (Male)	101	2009	38.7	12.8	See women's sample above. 48% completed bachelor's degree, 17% master's degree, 2% doctorate.			
Computer Scientist (Female)	101	2003	43.5	14.4	Members of Computing Research Association, International Society for Technology in Education. 3% had high school diploma or trade/technical training in addition, 4% some college, 11% completed associate degree, 52% bachelor's degree, 24% master's degree, 1% professional degree, 5% doctorate.	15-1111.00	Conduct research into fundamental computer and information science as theorist, designer, or inventor. Solve or develop solutions to problems in the field of computer hardware and software.	Computer Science Teacher Computer Software Consultant Computer System Security Analyst Computer Test Engineer E-Business Consultant Software Engineer
Computer Scientist (Male)	101	2003	43.8	15.8	See women's sample above. 11% had some college, 2% completed associate degree, 49% bachelor's degree, 30% master's degree, 1% professional degree, 7% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Computer Systems Analyst (Female)	102	2003	36.7	11.3	Sample collected from CPP database. 1% had some high school, 2% high school diploma, 2% trade/technical training, 17% some college, 6% completed associate degree, 54% bachelor's degree, 17% master's degree, 1% doctorate.	15-1151.00	Analyze science, engineering, business, and all other data processing problems for application to electronic data processing systems. Analyze user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations. May analyze or recommend commercially available software. May supervise computer programmers.	Computer, Automated Teller, or Office Machine Repairer Computer Operator Computer Programmer Computer Science Teacher, Postsecondary Computer Security Specialist Computer Support Specialist Electrical or Electronics Repairer, Commercial or Industrial Equipment Network Systems Analyst
Computer Systems Analyst (Male)	164	2009	40.2	14.4	Sample collected from CPP commercial and research databases. 43% completed bachelor's degree, 20% master's degree, 1% professional degree, 1% doctorate.			
Computer/Mathematics Manager (Female)	90	2009	43.7	17.4	Sample collected from CPP commercial and research databases. 50% completed bachelor's degree, 28% master's degree, 1% doctorate.	No specific O*NET code	Plan, direct, coordinate operations, formulate policies, manage daily operations, and plan the use of materials and human resources as applied to individuals and companies in the areas of computers and mathematics.	Chief Executive Officer Computer Programmer Computer Systems Analyst General Manager Technical Operations Manager
Computer/Mathematics Manager (Male)	216	2009	42.0	16.6	See women's sample above. 45% completed bachelor's degree, 31% master's degree, 2% professional degree, 2% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Cosmetologist (Female)	181	1984	35.3	13.6	From listings of state licensing boards of Alaska, Georgia, Illinois, Iowa, Michigan, Minnesota, South Dakota, Utah, Wisconsin, as well as national sampling from Bell Telephone Yellow Pages. 3% had high school diploma, 91% attended school of cosmetology, 1% completed associate degree, 4% other. Major activities included hairdressing (72%), management (6%), combination (20%).	39-5012.00	Provide beauty services, such as shampooing, cutting, coloring, and styling hair, and massaging and treating scalp. May also apply makeup, dress wigs, perform hair removal, and provide nail and skin care services.	Barber Bartender Cashier Floral Designer Food Preparation Worker Locker Room, Coatroom, or Dressing Room Attendant
Cosmetologist (Male)	195	1984	37.0	14.6	See women's sample above. 6% had high school diploma, 82% attended school of cosmetology, 3% completed associate degree, 4% bachelor's degree. Major activities included hairdressing (62%), management (17%), teaching (2%), combination (15%).			
Credit Manager (Female)	322	1993	39.2	12.3	Members of National Association of Credit Management. 21% had high school diploma or attended trade/technical school in addition, 48% some college or associate degree, 23% completed bachelor's degree, 4% master's or professional degree. Major activities included collection, customer relations, establishing credit policy, management/supervision, teaching/training others.	13-2041.00	Analyze current credit data and financial statements of individuals or firms to determine the degree of risk involved in extending credit or lending money. Prepare reports with this credit information for use in decision making.	Accountant Assessor Cost Estimator Financial Analyst Insurance Underwriter Personal Financial Advisor Purchasing Agent, except Wholesale, Retail, or Farm Products Tax Preparer
Credit Manager (Male)	454	1993	45.2	18.4	See women's sample above. 3% had high school diploma, 21% some college or associate degree, 58% completed bachelor's degree, 16% master's or professional degree. Major activities included collection, customer relations, management/supervision, establishing credit policy, teaching/training others.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Customer Service Representative (Female)	456	2009	37.4	11.1	Sample collected from CPP commercial and research databases. 12% completed bachelor's degree, 1% master's degree, less than 1% professional degree, less than 1% doctorate.	43-4051.00	Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints.	Bill or Account Collector Counter or Rental Clerk Eligibility Interviewer, Government Programs Insurance Policy Processing Clerk Interviewer, except Eligibility or Loan License Clerk Reservation or Transportation Ticket Agent or Travel Clerk Retail Salesperson Telephone Operator
Customer Service Representative (Male)	102	2009	36.9	9.4	See women's sample above. 30% completed bachelor's degree, 4% master's degree.			
Dentist (Female)	365	1993	36.7	9.8	Members of American Dental Association. 72% were in private practice, 18% were employed by private practitioners, balance were employed by public and private organizations.	29-1021.00	Diagnose and treat diseases, injuries, and malformations of teeth and gums and related oral structures. May treat diseases of nerve, pulp, and other dental tissues affecting vitality of teeth.	Dental Hygienist Optometrist Oral or Maxillofacial Surgeon Orthodontist
Dentist (Male)	416	1993	45.2	18.5	See women's sample above. 89% were in private practice, 7% were employed by government agencies, 4% were employed by private practitioners.			Physician Assistant Prosthodontist Respiratory Therapist

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Dietitian (Female)	208	1983	37.9	11.4	Obtained with assistance of American Dietetic Association; all were practicing, technician-registered dietitians. 51% completed bachelor's degree, 45% master's degree, 3% doctorate. 31% were employed by hospitals, 16% by government, 15% by educational institutions, 14% were self-employed, 5% were employed by business/industry, 12% combination. Major activities included administration/management (28%), teaching (24%), consulting (22%), combination (17%), other (8%).	29-1031.00	Plan and conduct food service or nutritional programs to assist in the promotion of health and control of disease. May supervise activities of a department providing quantity food services, counsel individuals, or conduct nutritional research.	Dietetic Technician Farm or Home Management Advisor First-Line Supervisor/Manager of Agricultural Crop or Horticultural Workers First-Line Supervisor/Manager of Animal Husbandry or Animal Care Workers First-Line Supervisor/Manager of Food Preparation or Serving Workers Health Educator
Dietitian (Male)	108	1983	34.1	7.8	See women's sample above. 50% completed bachelor's degree, 33% master's degree, 14% doctorate. 24% were employed by hospitals, 18% by government, 13% by educational institutions, 7% by military, 5% were self-employed, 2% were employed by business/industry, 9% other, 22% combination. Major activities included administration and management (54%), teaching (16%), consulting (11%), combination (16%).			
Editor (Female)	157	2003 and 2009	45.0	13.0	Sample collected from CPP commercial and research databases. A portion of the sample was also taken from the 2004 <i>Strong</i> revision. 53% completed bachelor's degree, 34% master's degree, 2% professional degree, 2% doctorate.	27-3041.00	Perform variety of editorial duties, such as laying out, indexing, and revising content of written materials, in preparation for final publication.	Broadcast News Analyst Poet, Lyricist, or Creative Writer Radio or Television Announcer Reporter or Correspondent Technical Writer
Editor (Male)	120	2003 and 2009	46.1	14.8	See women's sample above. 54% completed bachelor's degree, 33% master's degree, 4% professional degree, 2% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Elected Public Official (Female)	224	1978	48.2	6.3	Selected from rosters provided by National Women's Education Fund, including state legislators, statewide constitutional office-holders, and members of House of Representatives; and from list of city and county officials from <i>Women in Public Office: A Biographical Directory and Statistical Analysis</i> . 23% had high school diploma, 39% completed bachelor's degree, 16% master's degree. 39% were employed in other occupations while they held office.	No specific O*NET code	Hold elected public office in legislative bodies such as Congress, state legislatures, county commissions, and city councils. Involved in legislative action of the government. Listen to lobbyists and determine budget for the government.	Attorney General City Council Member County Commissioner Government Service Director Governor Judge Lawyer Legislator Mayor Representative Senator
Elected Public Official (Male)	208	1979	46.3	8.6	Members of 93rd U.S. Congress, collected by R. Willow. Others selected from <i>State Elective Officials and the Legislatures</i> , published by Council of State Governments. 20% had high school diploma, 30% completed bachelor's degree, 26% law degree, 13% master's degree, 6% doctorate. 67% were employed in other occupations while they held office.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Electrician (Female)	60	1984	29.2	4.4	Members of International Brotherhood of Electrical Workers and numerous women's organizations. 33% had high school diploma, 18% completed electrical apprenticeship, 13% had certificate from vocational school, 7% completed associate degree, 25% bachelor's degree. 77% were employed as construction electricians, 8% maintenance electricians, 8% other, 7% combination. 83% of sample spent minimum of 50% of time doing manual labor. Other activities included reading blueprints, communicating with contractors, problem solving, and administrative functions. 57% of sample were third- or fourth-year apprentices, 32% were at journey level.	47-2111.00	Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service streetlights, intercom systems, or electrical control systems.	Avionics Technician Computer, Automated Teller, or Office Machine Repairer Electrical or Electronics Repairer, Commercial or Industrial Equipment Electrical or Electronic Equipment Assembler Electronic Drafter Electronics Engineering Technician Model Maker, Metal or Plastic
Electrician (Male)	260	1984	34.6	13.2	Members of International Brotherhood of Electrical Workers. 22% had high school diploma, 46% completed electrical apprenticeship, 14% had certificate from vocational school, 8% completed associate degree, 7% bachelor's degree. 88% were employed as construction electricians, 4% maintenance electricians, 5% other, 4% combination. 79% of sample spent minimum of 50% of time doing manual labor. Other activities included reading blueprints, communicating with contractors, problem solving, and administrative functions. 31% of sample were third- or fourth-year apprentices, 61% were at journey level.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Elementary School Teacher (Female)	358	2009	37.3	10.3	Sample collected from CPP commercial and research databases. 65% completed bachelor's degree, 30% master's degree, 1% professional degree, less than 1% doctorate.	25-2021.00	Teach pupils in public or private schools at the elementary level basic academic, social, and other formative skills.	Instructional Coordinator Kindergarten Teacher, except Special Education Librarian
Elementary School Teacher (Male)	67	2009	36.6	10.0	See women's sample above. 57% completed bachelor's degree, 36% master's degree, 3% professional degree.			Preschool Teacher, except Special Education Recreation Worker Teacher's Assistant
Emergency Medical Technician (Female)	207	1983	37.2	5.7	Members of National Association of Emergency Medical Technicians. 13% had high school diploma, 6% attended vocational school, 36% had some college, 8% completed associate degree, 19% bachelor's degree, 2% master's degree. Employers included community and municipal services, such as police and fire departments (45%), private ambulance companies (24%), hospitals (20%), combination (6%). 74% spent minimum of 50% of time giving emergency medical care; other activities included driving ambulance, determining nature of injuries, and taking training courses.	29-2041.00	Assess injuries, administer emergency medical care, and extricate trapped individuals. Transport injured or sick persons to medical facilities.	Ambulance Driver or Attendant Chiropractor Dentist, General Nursing Aide, Orderly, or Attendant Radiation Therapist
Emergency Medical Technician (Male)	241	1983	33.8	7.1	See women's sample above. 10% had high school diploma, 16% attended vocational school, 24% had some college, 15% completed associate degree, 22% bachelor's degree. Employers included community and municipal services, such as police and fire departments (55%), hospitals (18%), private ambulance companies (17%), combination (3%), other (6%). 50% spent minimum of 50% of time giving emergency medical care; other activities included driving ambulance, determining nature of injuries, and taking training courses.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Engineer (Female)	91	2009	35.3	10.4	Sample collected from CPP commercial and research databases. 48% completed bachelor's degree, 37% master's degree, 10% professional degree.	Scale built from a combination of the following O*NET codes: 17-2031.00 17-2041.00 17-2051.00 17-2061.00 17-2071.00 17-2072.00 17-2081.00 17-2111.00 17-2112.00 17-2121.01 17-2131.00 17-2141.00 17-2151.00 17-2161.00	Perform engineering duties of planning, designing, developing, testing, installing, and supervising in areas such as biomedical, chemical, civil, computer hardware, electrical, electronics, environmental, health and safety, industrial, marine, materials, mechanical, mining or geological, and nuclear engineering.	Civil Drafter Construction or Building Inspector Electronics Engineer, except Computer Engineering Manager Landscape Architect Marine Architect Mathematical Technician Physicist Soil or Water Conservationist
Engineer (Male)	351	2009	39.3	14.1	See women's sample above. 49% completed bachelor's degree, 34% master's degree, 4% doctorate.			
Engineering Technician (Female)	126	2003	41.0	13.3	Sample from e-mail list of members of National Institute for Certification in Engineering Technologies. 8% had high school diploma, 9% trade/technical training in addition, 33% some college, 24% completed associate degree, 20% bachelor's degree, 5% master's degree, 1% professional degree.	Scale built from a combination of the following O*NET codes: 17-3027.00 17-3022.00 17-3023.03 17-3026.00	Under supervision of engineers, apply theory and principles of engineering to modify, test, plan, design, or develop electrical equipment, industrial manufacturing processes, machinery and equipment, or building structures.	Agricultural Engineering Technician Chemical Engineering Technician Civil Engineering Technician Electrical Drafter Electrical or Electronics Repairer, Commercial or Industrial Equipment Electronic Drafter Machinist Marine Architect Marine Engineer Mechanical Engineer Model Maker, Metal or Plastic Petroleum Engineer Surveying Technician
Engineering Technician (Male)	105	2003	46.9	21.6	See women's sample above. 9% had high school diploma, 11% trade/technical training in addition, 33% some college, 28% completed associate degree, 17% bachelor's degree, 2% master's degree.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
English Teacher (Female)	303	1982	39.1	11.0	National sample, members of National Council of Teachers of English, Secondary Section. All secondary school English teachers. 39% completed bachelor's degree, 57% master's degree. 48% taught mainly literature, 35% writing, 12% grammar. 81% spent minimum of 40% of time teaching; other activities included lesson preparation, grading, and meetings.	25-1123.00	Teach courses in English language and literature, including linguistics and comparative literature.	Adult Literacy, Remedial Education, or GED Teacher or Instructor Elementary School Teacher, except Special Education Instructional Coordinator Kindergarten Teacher, except Special Education
English Teacher (Male)	222	1982	39.1	14.6	See women's sample above. 29% completed bachelor's degree, 68% master's degree, 3% doctorate. 49% taught mainly literature, 29% writing, 16% grammar. 87% spent minimum of 40% of time teaching; other activities included lesson preparation, grading, and meetings.			
ESL Instructor (Female)	96	2003	45.3	12.6	Mailing list from California chapter of Teachers of English to Speakers of Other Languages, members of Teachers of English to Speakers of Other Languages, and National Association for Bilingual Education. 13% completed bachelor's degree, 79% master's degree, 1% professional degree, 7% doctorate.	25-3011.00	Teach or instruct out-of-school youths and adults in remedial education classes, preparatory classes for the General Educational Development test, literacy, or English as a second language. Teaching may or may not take place in a traditional educational institution.	English Language or Literature Teacher, Postsecondary Foreign Language or Literature Teacher, Postsecondary Graduate Teaching Assistant Health Educator Teacher's Assistant Vocational Education Teacher, Postsecondary
ESL Instructor (Male)	99	2003	49.2	15.3	See women's sample above. 1% had some college, 11% completed bachelor's degree, 68% master's degree, 4% professional degree, 16% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Facilities Manager (Female)	577	1993	45.6	14.3	Members of National Executive Housekeepers Association. 27% had high school diploma, 9% attended trade/technical school in addition, 41% had some college or associate degree, 10% completed bachelor's degree, 2% master's degree. 40% worked in hospitals, 25% in nursing/convalescent homes, 15% in hotels, 6% in educational institutions. Major activities included administration/supervision, training, customer contact, staff meetings, policy/procedure planning, and purchasing.	37-1011.00	Supervise work activities of cleaning personnel in hotels, hospitals, offices, and other establishments.	Appraiser, Real Estate First-Line Supervisor/Manager of Construction Trades or Extraction Workers First-Line Supervisor/Manager of Food Preparation or Serving Workers First-Line Supervisor/Manager of Landscaping, Lawn Service, or Groundskeeping Workers
Facilities Manager (Male)	569	1993	43.2	15.0	See women's sample above. 9% had high school diploma, 6% attended trade/technical school in addition, 44% had some college or associate degree, 29% completed bachelor's degree, 6% master's degree. 51% worked in hospitals, 14% in nursing/convalescent homes, 6% in hotels, 14% in educational institutions. Major activities included administration/supervision, training, customer contact, staff meetings, policy/procedure planning, and purchasing.			First-Line Supervisor/Manager of Office or Administrative Support Workers First-Line Supervisor/Manager of Personal Service Workers Host/Hostess, Restaurant, Lounge, or Coffee Shop Postmaster or Mail Superintendent Social or Community Service Manager

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Farmer/ Rancher (Female)	92	1992	51.0	26.7	Lists provided by Texas Farm Bureau, Iowa Farm Bureau, American Agri-women, and responses to mailings to members of National Farmers Organization and article in their newsletter. 27% had high school diploma, 11% attended trade/technical school in addition, 22% had some college or associate degree, 23% completed bachelor's degree, 4% master's or professional degree. Major activities included record keeping, business/financial planning, purchasing, marketing/customer contact, supervision, machinery operation.	11-9013.02	On an ownership or rental basis, operate farms, ranches, greenhouses, nurseries, timber tracts, or other agricultural production establishments that produce crops, horticultural specialties, livestock, poultry, fin-fish, shellfish, or animal specialties. May plant, cultivate, harvest, perform postharvest activities, and market crops and livestock; may hire, train, and supervise farmworkers or supervise a farm labor contractor; may prepare cost, production, and other records. May maintain and operate machinery and perform physical work.	Agricultural Inspector Aquacultural Manager Crop and Livestock Manager Farm or Home Management Advisor Farmworker or Laborer, Crop Fisher or Related Fishing Worker First-Line Supervisor/Manager of Agricultural Crop or Horticultural Workers First-Line Supervisor/Manager of Animal Husbandry or Animal Care Workers First-Line Supervisor/Manager of Aquacultural Workers
Farmer/ Rancher (Male)	152	1992	51.2	28.4	Lists provided by Texas Farm Bureau, Iowa Farm Bureau, and responses to mailings to members of National Farmers Organization and article in their newsletter. 28% had high school diploma, 11% attended trade/technical school in addition, 20% had some college or associate degree, 24% completed bachelor's degree, 3% master's degree. Major activities included purchasing, business/financial planning, machinery operation, record keeping, marketing/customer contact, crop planning/scheduling, and supervision.			
Financial Analyst (Female)	87	2003	35.8	9.2	Sample collected from CPP database. 5% had high school diploma, 14% some college, 3% completed associate degree, 47% bachelor's degree, 28% master's degree, 3% professional degree.	13-2051.00	Conduct quantitative analyses of information affecting investment programs of public or private institutions.	Accountant Actuary Auditor Credit Analyst Economist Personal Financial Advisor Tax Examiner, Collector, or Revenue Agent
Financial Analyst (Male)	177	2009	36.1	9.6	Sample collected from CPP commercial and research databases. 50% completed bachelor's degree, 37% master's degree, 1% professional degree, 1% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Financial Manager (Female)	281	2009	42.6	16.2	Sample collected from CPP commercial and research databases. 42% completed bachelor's degree, 30% master's degree, 1% professional degree, 1% doctorate.	11-3031.00	Plan, direct, and coordinate accounting, investing, banking, insurance, securities, and other financial activities of a branch, office, or department of an establishment.	Accountant Administrative Services Manager Agent or Business Manager of Artists, Performers, or Athletes Auditor Financial Analyst Financial Examiner Purchasing Manager Treasurer or Controller
Financial Manager (Male)	305	2009	41.1	16.0	See women's sample above. 45% completed bachelor's degree, 40% master's degree, 5% professional degree, less than 1% doctorate.			
Firefighter (Female)	94	2003	37.2	9.6	Responses to advertisements in newsletters for Women in Fire Service, International Association of Firefighters, Minneapolis Fire Department, Minneapolis–St. Paul International Airport Fire Department, Phoenix Fire Department; members of International Association of Black Professional Firefighters. 4% had high school diploma, 2% attended trade/technical school, 27% had some college, 27% completed associate degree, 33% bachelor's degree, 6% master's degree.	33-2011.01	Control and extinguish municipal fires, protect life and property, and conduct rescue efforts.	Fire Inspector Fish and Game Warden Forest Fire Fighter Forest Fire Fighter or Prevention Supervisor Forest Fire Inspector or Prevention Specialist Lifeguard, Ski Patrol, or other Recreational Protective Service Worker Municipal Fire Fighting or Prevention Supervisor Security Guard Transit or Railroad Police Officer Truck Driver, Heavy or Tractor-Trailer
Firefighter (Male)	98	2003	36.7	12.7	See women's sample above. 3% had high school diploma, 8% attended trade/technical school, 35% had some college, 24% completed associate degree, 25% bachelor's degree, 3% master's degree, 2% professional degree.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Flight Attendant (Female)	553	1992	38.5	14.4	Members of Association of Flight Attendants. 15% had high school diploma or attended trade/technical school in addition, 47% some college or associate degree, 34% completed bachelor's degree, 2% master's degree.	53-2031.00	Provide personal services to ensure the safety and comfort of airline passengers during flight. Greet passengers, verify tickets, explain use of safety equipment, and serve food or beverages.	Baggage Porter or Bellhop Combined Food Preparation and Serving Worker, including Fast Food Counter Attendant, Cafeteria, Food Concession, or Coffee Shop Counter or Rental Clerk Home Health Aide Hotel, Motel, or Resort Desk Clerk Locker Room, Coatroom, or Dressing Room Attendant Transportation Attendant, except Flight Attendant or Baggage Porter
Flight Attendant (Male)	412	1992	36.5	11.3	See women's sample above. 6% had high school diploma or attended trade/technical school in addition, 38% some college or associate degree, 50% completed bachelor's degree, 5% master's degree.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Florist (Female)	211	1983	40.4	11.3	Retail members of Society of American Florists listed in <i>Who's Who in Floriculture</i> . 18% had high school diploma, 9% attended vocational school, 35% had some college, 9% completed associate degree, 21% bachelor's degree. 84% worked in family-owned florist shop; 91% of shops employed less than 10 people. 93% were single florist shops, 7% part of chain. 79% bought all inventory from supplier, 2% had greenhouse, 18% obtained inventory from combination. Major activities included designing arrangements (25%), taking inventory (17%), customer contact (13%), combination (44%).	27-1023.00	Design, cut, and arrange live, dried, or artificial flowers and foliage.	Costume Attendant Makeup Artist, Theatrical or Performance Nursery Worker Optician, Dispensing Shoe or Leather Worker or Repairer Tailor, Dressmaker, or Custom Sewer
Florist (Male)	207	1983	40.2	15.8	See women's sample above. 6% had high school diploma, 35% some college, 9% completed associate degree, 36% bachelor's degree. 84% worked in family-owned florist shop; 72% of shops employed less than 10 people. 79% were single florist shops, 21% part of chain. 63% bought all inventory from supplier; 6% had greenhouse, 31% obtained inventory from combination of two. Major activities included designing arrangements (23%), taking inventory (18%), customer contact (11%), combination (41%).			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Food Service Manager (Female)	180	1984	40.6	9.9	Members of Hospital, Institution, and Educational Food Service Society. 33% had high school diploma, 27% completed associate degree, 17% bachelor's degree, 5% master's degree, 18% other. 88% were employed by hospitals or nursing homes, 5% by educational institutions. Major activities included personnel management (23%), customer contact (6%), record keeping and financial planning (5%), combination (55%).	11-9051.00	Plan, direct, or coordinate activities of an organization or department that serves food and beverages.	First-Line Supervisor/Manager of Food Preparation or Serving Workers First-Line Supervisor/Manager of Office or Administrative Support Workers Lodging Manager Medical or Health Services Manager Recreation Worker
Food Service Manager (Male)	116	1984	36.4	10.7	See women's sample above. 22% had high school diploma, 5% certificate from vocational/technical institution, 7% completed associate degree, 30% bachelor's degree, 32% master's degree, 1% doctorate. 53% were employed by hospitals or nursing homes, 20% by educational institutions, 19% other. Major activities included personnel management (24%), purchasing and inventory (6%), customer contact (3%), record keeping and financial planning (3%), combination (56%).			Social or Community Service Manager
Forester (Female)	438	1993	35.5	11.2	Members of American Society of Foresters. 4% completed associate degree, 56% bachelor's degree, 33% master's degree, 6% doctorate. 55% were employed by federal government; 18% by state, regional, or local government; 13% by industry; 8% were self-employed or employed by consulting firm. 59% were engaged in forest resource/ecosystem management. Balance were spread over variety of specializations.	19-1032.00	Manage forested lands for economic, recreational, and conservation purposes. May inventory the type, amount, and location of standing timber, appraise the timber's worth, negotiate the purchase, and draw up contracts for procurement. May determine how to conserve wildlife habitats, creek beds, water quality, and soil stability, and how best to comply with environmental regulations. May devise plans for planting and growing new trees, monitor trees for healthy growth, and determine the best time for harvesting. Develop forest management plans for public and privately owned forested lands.	Biologist Environmental Scientist or Specialist, including Health First-Line Supervisor/Manager of Agricultural Crop or Horticultural Workers Fish and Game Warden Nursery or Greenhouse Manager Park Naturalist Range Manager Soil or Water Conservationist
Forester (Male)	921	1993	47.0	21.7	See women's sample above. 2% completed associate degree, 59% bachelor's degree, 26% master's degree, 11% doctorate. 27% were employed by federal government; 24% by state, regional, or local government; 23% by industry; 18% were self-employed or employed by consulting firm. 61% were engaged in forest resource/ecosystem management. Balance were spread over variety of specializations.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Geographer (Female)	99	2003	42.0	8.3	Mailing list from Association of American Geographers; members of Society of Woman Geographers. 1% had some college, 6% completed bachelor's degree, 44% master's degree, 49% doctorate.	19-3092.00	Study nature and use of areas of earth's surface, relating and interpreting interactions of physical and cultural phenomena. Conduct research on physical aspects of a region, including land forms, climates, soils, plants, and animals, and conduct research on the spatial implications of human activities within a given area, including social characteristics, economic activities, and political organization, as well as researching interdependence between regions at scales ranging from local to global.	Atmospheric or Space Scientist Cartographer or Photogrammetrist City or Regional Planning Aide Fish and Game Warden Forester Geoscientist, except Hydrologist or Geographer Hydrologist Police, Fire, or Ambulance Dispatcher Surveyor Urban or Regional Planner
Geographer (Male)	100	2003	48.2	16.3	See women's sample above. 5% completed bachelor's degree, 32% master's degree, 2% professional degree, 61% doctorate.			
Geologist (Female)	212	1979	35.4	9.9	From Geological Society of America Directory. 23% completed bachelor's degree, 47% master's degree, 30% doctorate. 36% were employed by government, 27% by educational institutions, 26% by private industry. Major activities were research and exploration (59%), teaching (13%), combination (12%).	19-2042.00	Study the composition, structure, and history of the earth's crust; examine rocks, minerals, and fossil remains to identify and determine the sequence of processes affecting the development of the earth.	Earth Science Teacher Engineering Geologist Forest Geologist Geological Data Technician Geological Engineer Hydrologist Marine Geologist Paleontologist Petroleum Geologist Seismologist
Geologist (Male)	242	1979	39.4	15.0	See women's sample above. 12% completed bachelor's degree, 36% master's degree, 52% doctorate. 39% were employed by educational institutions, 30% by private industry, 24% by government. Major activities were research and exploration (41%), teaching (22%), administration (12%), combination (18%).			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Graphic Designer (Female)	91	2009	36.9	11.4	Sample collected from CPP commercial and research databases. 55% completed bachelor's degree, 3% master's degree.	27-1024.00	Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.	Art Director Camera Operator, Television, Video, or Motion Picture
Graphic Designer (Male)	206	1979	38.8	15.6	See women's sample above. 27% had taken art courses not leading to degree, 47% completed bachelor's degree, 6% master's degree. 39% were freelance artists, 23% by studio, 10% by advertising agency, 15% by combination of employers.			Commercial or Industrial Designer Director—Stage, Motion Pictures, Television, or Radio Fashion Designer Fine Artist, including Painter, Sculptor, or Illustrator Makeup Artist, Theatrical or Performance Set or Exhibit Designer
Health Information Specialist (Female)	395	1992	40.9	14.3	Members of American Health Information Management Association. 8% had high school diploma or attended trade/technical school in addition, 45% some college or associate degree, 37% completed bachelor's degree, 9% master's degree. 71% were employed by hospitals. Most time was devoted to areas of clinical coding/classification, computerized health data, quality assurance and case management, and medicolegal issues.	29-2071.00	Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health-care system. Process, maintain, compile, and report patient information for health requirements and standards.	Correspondence Clerk Insurance Claim Clerk Insurance Policy Processing Clerk Office Clerk, General Payroll or Timekeeping Clerk Pharmacy Technician Procurement Clerk
Health Information Specialist (Male)	247	1992	40.3	12.9	See women's sample above. 1% attended trade/technical school in addition, 20% had some college or associate degree, 49% completed bachelor's degree, 26% master's degree, 2% professional degree, 2% doctorate. 66% were employed by hospitals. Most time was devoted to areas of computerized health data, clinical coding/classification, medicolegal issues, and quality assurance/case management.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Horticulturist (Female)	155	1983	31.5	6.7	Nationwide sample from catalog of American Association of Nurserymen. 28% had high school diploma, 12% certificate from vocational/technical institution, 12% completed associate degree, 36% bachelor's degree, 4% master's degree. Employers included retailers and landscapers combined (28%); wholesalers only (25%); wholesalers, retailers, and landscapers combined (19%); retailers only (11%); wholesalers and retailers combined (6%); landscapers only (5%); other (5%). 44% were in place of employment specializing in area of horticulture. Major activities included customer service (35%), care of plants (18%), administrative functions (9%), soil preparation (6%), combination (26%).	19-1013.00	Conduct research in breeding, physiology, production, yield, and management of crops and agricultural plants, their growth in soils, and control of pests; or study the chemical, physical, biological, and mineralogical composition of soils as they relate to plant or crop growth. May classify and map soils and investigate effects of alternative practices on soil and crop productivity.	Agricultural Inspector Animal Scientist Biochemist or Biophysicist Biologist Food Science Technician Soil or Water Conservationist Zoologist or Wildlife Biologist
Horticulturist (Male)	208	1983	32.9	10.4	See women's sample above. 17% had high school diploma, 10% certificate from vocational/technical institution, 9% completed associate degree, 55% bachelor's degree, 5% master's degree. Employers included wholesalers only (29%); retailers and landscapers combined (22%); landscapers only (12%); wholesalers, retailers, and landscapers combined (12%); retailers only (7%); wholesalers and retailers combined (7%); wholesalers and landscapers combined (5%); other (6%). 53% were in place of employment specializing in area of horticulture. Major activities included customer service (20%), administrative functions (17%), care of plants (16%), soil preparation (10%), combination (30%).			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Human Resources Manager (Female)	368	2009	42.5	14.5	Sample collected from CPP commercial and research databases. 47% completed bachelor's degree, 33% master's degree, 1% professional degree, 2% doctorate.	11-3121.00	Plan, direct, and coordinate human resource management activities of an organization to maximize the strategic use of human resources and maintain functions such as employee compensation, recruitment, personnel policies, and regulatory compliance.	Administrative Services Manager Compensation and Benefits Manager Medical or Health Services Manager
Human Resources Manager (Male)	123	2009	43.2	16.9	See women's sample above. 40% completed bachelor's degree, 42% master's degree, 2% professional degree, 6% doctorate.			Personnel Recruiter Postmaster or Mail Superintendent Training and Development Specialist
Human Resources Specialist (Female)	316	2009	38.6	11.5	Sample collected from CPP commercial and research databases. 48% completed bachelor's degree, 21% master's degree, 1% professional degree, 1% doctorate. In addition to the occupations associated with the O*NET codes, Employment Training Specialists also included in this sample.	13-1071.00	Seek out, interview, and screen applicants to fill existing and future job openings and promote career opportunities within an organization. Conduct programs of compensation and benefits and job analysis for employer. May specialize in specific areas such as position classification and pension programs.	Appraiser, Real Estate Employment Interviewer Farm or Management Advisor First-Line Supervisor/Manager of Housekeeping or Janitorial Workers
Human Resources Specialist (Male)	87	2009	39.8	11.8	See women's sample above. 52% completed bachelor's degree, 22% master's degree, 1% professional degree, 12% doctorate. In addition to the occupations associated with the O*NET codes, Employment Training Specialists also included in this sample.			Insurance Adjuster, Examiner, or Investigator Management Analyst Operations Research Analyst Property, Real Estate, or Community Association Manager Purchasing Agent, except Wholesale, Retail, or Farm Products Talent Director

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Instructional Coordinator (Female)	166	2009	41.1	10.8	Sample collected from CPP commercial and research databases. 40% completed bachelor's degree, 33% master's degree, 1% professional degree, 6% doctorate.	25-9031.00	Develop instructional material, coordinate educational content, and incorporate current technology in specialized fields that provide guidelines to educators and instructors for developing curricula and conducting courses.	Education Administrator, Elementary or Secondary School Health Educator Management Analyst Training and Development Manager Training and Development Specialist Vocational Educational Teacher, Postsecondary
Instructional Coordinator (Male)	52	2009	43.0	13.9	See women's sample above. 35% completed bachelor's degree, 42% master's degree, 2% doctorate.			
Interior Designer (Female)	222	1982	40.4	14.9	Names supplied by American Society of Interior Designers. 65% completed bachelor's degree, 9% master's degree, 13% graduated from professional school of interior design. 59% were self-employed or in partnership, 18% were employed by retail store, 4% by architectural firm. 34% specialized in residential design. Major activities included preparation of presentations for clients (32%), administrative functions (12%), conferring with clients and contractors (5%), combination (45%).	27-1025.00	Plan, design, and furnish interiors of residential, commercial, or industrial buildings. Formulate design that is practical, aesthetic, and conducive to intended purposes such as raising productivity, selling merchandise, or improving life-style. May specialize in a particular field, style, or phase of interior design.	Art Director Civil Drafter Commercial or Industrial Designer Costume Attendant Landscape Architect Set or Exhibit Designer Tailor, Dressmaker, or Custom Sewer
Interior Designer (Male)	214	1982	41.6	16.5	See women's sample above. 58% completed bachelor's degree, 11% master's degree, 14% graduated from professional school of interior design. 57% were self-employed or in partnership, 15% were employed by retail store, 4% by architectural firm, 9% worked for more than one employer. 27% specialized in residential design, 22% in commercial design. Major activities included preparation of presentations for clients (32%), administrative functions (15%), conferring with clients and contractors (6%), combination (36%).			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Landscape/ Grounds Manager (Female)	94	1992	39.8	11.3	Members of Professional Grounds Management Society and from commercially compiled national listing of gardening firms. 20% had high school diploma or attended trade/technical school in addition, 34% some college or associate degree, 31% completed bachelor's degree, 10% master's degree, 1% professional degree.	37-1012.00	Plan, organize, direct, or coordinate activities of workers engaged in landscaping or groundskeeping activities, such as planting and maintaining ornamental trees, shrubs, flowers, and lawns, and applying fertilizers, pesticides, and other chemicals, according to contract specifications.	<ul style="list-style-type: none"> First-Line Supervisor/Manager of Agricultural Crop or Horticultural Workers First-Line Supervisor/Manager of Animal Husbandry or Animal Care Workers
Landscape/ Grounds Manager (Male)	362	1992	40.1	16.7	See women's sample above. 13% had high school diploma or attended trade/technical school in addition, 35% some college or associate degree, 42% completed bachelor's degree, 8% master's degree.			<ul style="list-style-type: none"> First-Line Supervisor/Manager of Construction Trades or Extraction Workers First-Line Supervisor/Manager of Housekeeping or Janitorial Workers First-Line Supervisor/Manager of Logging Workers Forest Conservation Worker Greenhouse Worker Horticultural Worker Lodging Manager
Law Enforcement Officer (Female)	116	1993	37.4	11.6	Attendees at meeting of International Association of Women Police, members of United Federation of Police Officers, Texas Police Association, and Cal Cops. 8% had high school diploma, 47% some college or associate degree, 29% completed bachelor's degree, 15% master's degree.	33-3051.01	Patrol assigned area to enforce laws and ordinances, regulate traffic, control crowds, prevent crime, and arrest violators.	<ul style="list-style-type: none"> Correctional Officer or Jailer Criminal Investigator or Special Agent Fire Inspector Fish and Game Warden Forest Fire Inspector or Prevention Specialist Municipal Fire Fighting or Prevention Supervisor Private Detective or Investigator Security Guard Sheriff or Deputy Sheriff
Law Enforcement Officer (Male)	484	1993	40.7	15.3	Members of United Federation of Police Officers, Texas Police Association, and Cal Cops. 10% had high school diploma, 48% some college or associate degree, 28% completed bachelor's degree, 8% master's degree.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Librarian (Female)	1,187	1992	44.9	16.4	Librarian members of American Library Association and Special Libraries Association. 92% completed master's degree, 3% professional degree, 5% doctorate. 33% worked in 4-year college or university library, 29% in public library, 12% in school library, 11% in library of for-profit organization, 5% in library of nonprofit organization (non-governmental).	25-4021.00	Administer libraries and perform related library services. Work in a variety of settings, including public libraries, schools, colleges and universities, museums, corporations, government agencies, law firms, nonprofit organizations, and healthcare providers. Tasks may include selecting, acquiring, cataloging, classifying, circulating, and maintaining library materials; and furnishing reference, bibliographical, and readers' advisory services. May perform in-depth, strategic research and synthesize, analyze, edit, and filter information. May set up or work with databases and information systems to catalog and access information.	Computer or Information Systems Manager Counter or Rental Clerk Education Administrator, Elementary or Secondary School Elementary School Teacher, except Special Education
Librarian (Male)	355	1992	45.4	17.6	See women's sample above. 78% completed master's degree, 7% professional degree, 14% doctorate. 45% worked in 4-year college or university library, 30% in public library, 6% in library of for-profit organization, 5% for U.S. government.			First-Line Supervisor/Manager of Office or Administrative Support Workers Library Technician
Life Insurance Agent (Female)	265	1992	44.2	11.4	Members of National Association of Life Underwriters. 13% had high school diploma or attended trade/technical school in addition, 36% some college or associate degree, 33% completed bachelor's degree, 17% master's or professional degree.	41-3021.00	Sell life, property, casualty, health, automotive, or other types of insurance. May refer clients to independent brokers, work as an independent broker, or be employed by an insurance company.	Insurance Broker Life Insurance Underwriter Pension Specialist
Life Insurance Agent (Male)	294	1992	45.8	16.2	See women's sample above. 5% had high school diploma or attended trade/technical school in addition, 26% some college or associate degree, 50% completed bachelor's degree, 16% master's or professional degree.			

Occupational Scale Samples, O*NET2 Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Loan Officer/Counselor (Female)	93	2009	36.8	10.9	Sample collected from CPP commercial and research databases. 24% completed bachelor's degree, 8% master's degree, 1% professional degree.	13-2072.00 13-2071.00	Evaluate, authorize, or recommend approval of commercial, real estate, or credit loans. Advise borrowers on financial status and methods of payments. Includes mortgage loan officers and agents, collection analysts, loan servicing officers, and loan underwriters. Provide guidance to prospective loan applicants who have problems qualifying for traditional loans. Guidance may include determining the best type of loan and explaining loan requirements or restrictions.	Billing, Costs, or Rate Clerk Brokerage Clerk Credit Analyst Financial Analyst Loan Interviewer or Clerk New Accounts Clerk Personal Financial Advisor Tax Examiner, Collector, or Revenue Agent Tax Preparer Teller
Loan Officer/Counselor (Male)	71	2009	36.8	10.6	See women's sample above. 54% completed bachelor's degree, 9% master's degree, 1% professional degree.			
Management Analyst (Female)	131	2009	42.0	14.2	Sample collected from CPP commercial and research databases. 34% completed bachelor's degree, 34% master's degree, 1% professional degree, 1% doctorate.	13-1111.00	Conduct organizational studies and evaluations, design systems and procedures, conduct work simplifications and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively. Includes program analysts and management consultants.	Administrative Services Manager First-Line Supervisor/Manager of Office or Administrative Support Workers Property, Real Estate, or Community Association Manager Purchasing Manager Training and Development Manager Training and Development Specialist
Management Analyst (Male)	89	2009	38.6	12.0	See women's sample above. 38% completed bachelor's degree, 46% master's degree, 2% professional degree, 2% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Marketing Manager (Female)	307	2009	38.7	12.2	Sample collected from CPP commercial and research databases. 52% completed bachelor's degree, 32% master's degree, 2% professional degree, 2% doctorate.	11-2021.00	Determine the demand for products and services offered by a firm and its competitors and identify potential customers. Develop pricing strategies with the goal of maximizing the firm's profits or share of the market while ensuring that the firm's customers are satisfied. Oversee product development or monitor trends that indicate the need for new products and services.	Advertising or Promotions Manager Demonstrator or Product Promoter Public Relations Specialist Sales Manager Wholesale or Retail Buyer
Marketing Manager (Male)	239	2009	41.1	14.2	See women's sample above. 44% completed bachelor's degree, 44% master's degree, 2% professional degree, 1% doctorate.			
Mathematician (Female)	213	1982	41.1	14.9	Names from combined membership list of Mathematical Association of America and Society for Industrial and Applied Mathematics. All completed doctorate. 93% were employed by colleges or universities, 3% by business/industry, 1% by government. 29% considered themselves theoretical mathematicians, 22% applied, 48% combination. 81% identified primary job function as teacher, 8% researcher, 2% statistician, 2% computer scientist. Major activities included teaching (74%), research (5%), combination (15%).	15-2021.00	Conduct research in fundamental mathematics or in application of mathematical techniques to science, management, and other fields. Solve or direct solutions to problems in various fields by mathematical methods.	Compensation, Benefits, or Job Analyst Specialist Cost Estimator Insurance Underwriter Mathematical Technician Operations Research Analyst Statistical Assistant Statistician Traffic Technician
Mathematician (Male)	270	1982	41.7	16.4	See women's sample above. All completed doctorate. 95% were employed by colleges or universities, 2% by business/industry, 1% by government. 32% considered themselves theoretical mathematicians, 23% applied, 44% combination. 68% identified primary job function as teacher, 14% researcher, 4% computer scientist, 2% statistician. Major activities included teaching (67%), research (10%), combination (14%).			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Mathematics Teacher (Female)	245	1982	37.7	11.9	National sample, National Science Teachers Association, U.S. Registry. 40% completed bachelor's degree, 59% master's degree. 43% taught mainly algebra, 20% geometry, 14% basic math; other areas included trigonometry, calculus, computer science, and analytical geometry. All were high school teachers; 98% taught more than one grade. 92% spent minimum of 40% of time teaching; other activities included lesson preparation, grading, administrative functions. 22% also were involved in advising other school activities relating to math, such as math club.	25-1022.00	Teach courses pertaining to mathematical concepts, statistics, and actuarial science and to the application of original and standardized mathematical techniques in solving specific problems and situations.	<ul style="list-style-type: none"> Compensation, Benefits, or Job Analyst Specialist Computer and Information Systems Manager Computer Programmer Computer Science Teacher, Postsecondary Education Administrator, Elementary and Secondary School Farm or Home Management Advisor Management Analyst
Mathematics Teacher (Male)	226	1982	39.1	14.0	See women's sample above. 31% completed bachelor's degree, 64% master's degree. 42% taught mainly algebra, 19% geometry, 10% basic math, 7% computer science, 4% trigonometry, 4% calculus, 10% combination. All were high school teachers; 96% taught more than one grade. 91% spent minimum of 40% of time teaching; other activities included lesson preparation, grading, administrative functions. 20% also were involved in advising other school activities relating to math, such as math club.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Medical Illustrator (Female)	99	1984	37.2	11.0	Members of Association of Medical Illustrators. 40% completed bachelor's degree, 52% master's degree. 44% were self-employed, 26% were employed by medical centers, 14% by teaching institutions, 5% other, 9% combination. 78% of those not self-employed also did freelance work. 34% specialized in a particular medical field. 76% spent minimum of 50% of time illustrating; other activities included consulting, research, and administrative functions.	No specific O*NET code See 27-1013.00 (Fine Artists, Painters, Sculptors, and Illustrators).	Create medical illustration and models using a variety of mediums, such as the Web, personal computer, and print.	Graphic Artist Medical Sculptor Multimedia Artist Scientific Artist Scientific Illustrator
Medical Illustrator (Male)	61	1984	41.9	16.2	See women's sample above. 20% completed bachelor's degree, 63% master's degree, 12% doctorate. 15% were self-employed, 31% were employed by medical centers, 28% by teaching institutions, 20% other, 7% combination. 83% of those not self-employed also did freelance work. 38% specialized in a particular medical field. 58% spent minimum of 50% of time illustrating; other activities included consulting, research, and administrative functions.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Medical Technician (Female)	259	1982	43.3	21.2	Certified members of American Association of Medical Technologists. 83% had some college courses and/or training in medical technology, 11% completed bachelor's degree, 2% master's degree. 50% were employed by hospital laboratory, 9% by clinic of 5 physicians or less, 7% by clinic of more than 5, 7% by independent clinic lab, 6% by health agency, 6% by military, 14% other. Specialties included clinical chemistry (8%), hematology (7%), blood bank (6%), combination (38%), no specialty (25%), other (8%). Major activities included conducting lab tests (46%), supervisory functions (7%), administrative functions (7%), specimen preparation (4%), combination (33%).	29-2012.00	Perform routine medical laboratory tests for the diagnosis, treatment, and prevention of disease. May work under the supervision of a medical technologist.	Anesthesiologist Coroner Dentist, General Medical or Clinical Laboratory Technologist Nuclear Medicine Technologist Optometrist Oral or Maxillofacial Surgeon Pharmacist
Medical Technician (Male)	233	1982	44.6	22.1	See women's sample above. 75% had some college courses and/or training in medical technology, 17% completed bachelor's degree, 5% master's degree. 54% were employed by hospital laboratory, 13% by independent clinic lab, 9% by military, 5% by clinic of more than 5 physicians, 4% by clinic of less than 5, 3% by health agency, 13% other. Specialties included clinical chemistry (7%), cystology (5%), hematology (5%), combination (38%), no specialty (21%), other (15%). Major activities included conducting lab tests (30%), supervisory functions (16%), administration (18%), combination (30%).			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Medical Technologist (Female)	266	1984	37.9	13.7	Members of American Society for Medical Technology. 88% completed bachelor's degree, 12% master's degree. 68% were employed by hospital laboratory, 9% by independent clinic lab, 5% by clinic, 3% by government, 2% by research institution, 2% by physicians, 10% other, 2% combination. Specializations included clinical chemistry (18%), hematology (17%), blood bank (10%), microbiology (9%), other (7%), combination (25%), no specialization (13%). Major activities included conducting lab tests (44%), administrative functions (11%), supervising lab workers (8%), analyzing results (2%), combination (31%).	29-2011.00	Perform complex medical laboratory tests for diagnosis, treatment, and prevention of disease. May train or supervise staff.	Anesthesiologist Biological Technician Biologist Coroner Medical or Clinical Laboratory Technician Microbiologist
Medical Technologist (Male)	206	1984	37.0	12.4	See women's sample above. 93% completed bachelor's degree, 7% master's degree. 68% were employed by hospital laboratory, 8% by independent clinic lab, 4% by clinic, 8% other, 5% combination. Specializations included clinical chemistry (18%), hematology (8%), microbiology (6%), blood bank (3%), other (15%), combination (20%), no specialty (28%). Major activities included conducting lab tests (41%), administrative functions (22%), supervising lab workers (10%), analyzing results (2%), combination (24%).			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Mental Health Counselor (Female)	252	2009	36.7	8.4	Sample collected from the American Counseling Association and CPP commercial and research databases. 27% completed bachelor's degree, 58% master's degree, 1% professional degree, 11% doctorate.	21-1014.00	Counsel with emphasis on prevention. Work with individuals and groups to promote optimum mental health. May help individuals deal with addictions and substance abuse; family, parenting, and marital problems; suicide; stress management; problems with self-esteem; and issues associated with aging and mental and emotional health.	Child, Family, or School Social Worker Occupational Therapist Physical Therapist Recreational Therapist Residential Advisor Social or Human Service Assistant
Mental Health Counselor (Male)	76	2009	36.4	8.9	See women's sample above. 30% completed bachelor's degree, 46% master's degree, 24% doctorate.			
Middle School Teacher (Female)	233	2009	35.9	9.9	Sample collected from CPP commercial and research databases. 62% completed bachelor's degree, 35% master's degree, less than 1% doctorate.	25-2022.00	Teach students in public or private schools in one or more subjects at the middle, intermediate, or junior high level, which falls between elementary and senior high school as defined by applicable state laws and regulations.	Elementary School Teacher, except Special Education Health Educator Instructional Coordinator Teacher's Assistant Vocational Educational Teacher, Postsecondary
Middle School Teacher (Male)	100	2009	37.8	10.4	See women's sample above. 54% completed bachelor's degree, 41% master's degree.			
Military Enlisted (Female)	838	1984	29.7	8.1	Roster of enlistees (air force, army, marines, navy) provided by Defense Manpower Data Center, U.S. Department of Defense. 66% had high school diploma, 12% degree or certificate from vocational/technical institution, 12% completed associate degree, 7% bachelor's degree, 2% master's degree.	No specific O*NET code The Military Specific job family includes a number of military occupations with some description.	Provide technical support for operation of military vehicles, aircraft, and vessels. Repair and maintain equipment and transportation vehicles. Aid in transportation of personnel and freight. Prepare weapons or artillery and participate in drills and operations.	Air Crew Member Command and Control Center Officer Military Enlisted, Tactical Operations or Air/Weapon Specialist or Crew Member, all other Military Officer, Special, or Tactical Operations Leader/Manager Special Operations Forces Team Member
Military Enlisted (Male)	817	1984	33.2	13.4	See women's sample above. 66% had high school diploma, 13% degree or certificate from vocational/technical institution, 15% completed associate degree, 3% bachelor's degree, 3% master's degree.	For more information on military occupations, contact the U.S. Department of Defense.		

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Military Officer (Female)	801	1979	32.2	8.6	Roster of commissioned officers (air force, army, navy) provided by Defense Manpower Data Center, U.S. Department of Defense. 57% completed bachelor's degree, 38% master's degree.	No specific O*NET code The Military Specific job family includes a number of military occupations with some description. For more information on military occupations, contact the U.S. Department of Defense.	Operate jets or vessels. Supervise unit operations, safety and maintenance of vessels, and crew.	Command and Control Center Officer First-Line Supervisor/Manager of Air Crew Members First-Line Supervisor/Manager of all other Tactical Operations Specialists First-Line Supervisor/Manager of Weapons Specialists/Crew Members Military Enlisted, Tactical Operations or Air/Weapon Specialist or Crew Member
Military Officer (Male)	899	1979	37.3	14.0	See women's sample above. 41% completed bachelor's degree, 43% master's degree.			
Musician (Female)	209	1979	35.4	14.4	Members of musicians' unions in Milwaukee, San Francisco, Fort Worth, Atlanta, St. Louis, Denver, and Minneapolis; and from national write-in response to articles in musicians' publications. Data collected with assistance of L. Harmon. 23% had high school diploma, 40% completed bachelor's degree, 24% master's degree. 94% had private instruction averaging 13 years. 22% were employed in other occupations simultaneously.	27-2042.02	Play one or more musical instruments in recital, in accompaniment, or as member of an orchestra, band, or other musical group.	Actor Art, Drama, or Music Teacher, Postsecondary Director—Stage, Motion Pictures, Television, or Radio Film or Video Editor Kindergarten Teacher, except Special Education Music Composer or Arranger
Musician (Male)	230	1979	34.2	16.3	See women's sample above. 34% had high school diploma, 30% completed bachelor's degree, 14% master's degree. 86% had private instruction averaging 8 years. 31% were employed in other occupations simultaneously.			Music Director Musical Instrument Repairer or Tuner Photographer

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Network Administrator (Female)	142	2003 and 2009	39.5	13.1	Sample collected from CPP commercial and research databases. A portion of the sample was also taken from the 2004 <i>Strong</i> revision. 46% completed bachelor's degree, 13% master's degree, 1% professional degree.	15-1142.00	Install, configure, and support an organization's local area network (LAN), wide area network (WAN), and Internet system or a segment of a network system. Maintain network hardware and software. Monitor network to ensure network availability to all system users and perform necessary maintenance to support network availability. May supervise other network support and client server specialists and plan, coordinate, and implement network security measures.	Computer and Information Systems Manager Computer Security Specialist Computer Systems Administrator Desktop Support Administrator Network Communications Analyst Network Security Engineer
Network Administrator (Male)	184	2003 and 2009	38.5	12.1	See women's sample above. 38% completed bachelor's degree, 9% master's degree, 1% professional degree, 1% doctorate.			
Nursing Home Administrator (Female)	238	1993	47.2	15.2	From commercially compiled national listing. 6% had high school diploma or attended trade/technical school in addition, 32% some college or associate degree, 35% completed bachelor's degree, 19% master's degree, 5% professional degree. Major activities included administration/supervision/management, contact with residents/families, government and regulatory compliance/liaison.	11-9111.00	Plan, direct, or coordinate medicine and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.	Administrative Services Manager Education Administrator, Elementary and Secondary School First-Line Supervisor/Manager of Office or Administrative Support Workers Management Analyst
Nursing Home Administrator (Male)	306	1993	44.3	14.2	See women's sample above. 2% had high school diploma, 10% some college or associate degree, 47% completed bachelor's degree, 35% master's degree, 2% professional degree, 3% doctorate. Major activities included administration/supervision/management, contact with residents/families, government and regulatory compliance/liaison.			Medical and Health Services Manager

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Occupational Therapist (Female)	328	1992	39.5	13.8	Members of Occupational Therapy Association. 66% completed bachelor's degree, 31% master's or professional degree, 1% doctorate. 45% were employed by hospitals and clinics, 20% by educational institutions, 16% were self-employed or in private practice, 9% were employed by nursing homes.	29-1122.00	Assess, plan, organize, and participate in rehabilitative programs that help restore vocational, homemaking, and daily living skills, as well as general independence, to disabled persons.	Director, Religious Activities or Education Physical Therapist Recreational Therapist Social or Human Service Assistant
Occupational Therapist (Male)	388	1992	40.4	14.1	See women's sample above. 53% completed bachelor's degree, 42% master's or professional degree, 4% doctorate. 46% were employed by hospitals and clinics, 17% by educational institutions, 17% were self-employed or in private practice, 6% were employed by nursing homes.			
Operations Manager (Female)	468	2009	42.4	15.0	Sample collected from CPP commercial and research databases. 40% completed bachelor's degree, 25% master's degree, 1% professional degree, 1% doctorate.	11-1021.00	Plan, direct, or coordinate the operations of companies or public and private sector organizations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Includes owners and managers who head small business establishments whose duties are primarily managerial.	Branch Operations Manager Chief Executive Officer General Manager Technical Operations Manager
Operations Manager (Male)	666	2009	42.7	16.6	See women's sample above. 41% completed bachelor's degree, 36% master's degree, 2% professional degree, 2% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Optician (Female)	258	1982	36.0	9.9	Members of Opticians Association of America. 25% had high school diploma, 9% attended vocational/technical school, 43% had some college, 12% completed associate degree, 8% bachelor's degree, 2% master's degree. 55% learned dispensing skills on job, 8% in school, 4% as apprentices, 33% combination. Employers included retail optical stores (44%), self-owned optical stores (36%), ophthalmologists (10%), department stores (7%). Major activities included combination of determining style and size of lens, adjusting glasses, and writing work orders. No one who spent more than 25% of time attending to administrative details was included in sample.	29-2081.00	Design, measure, fit, and adapt lenses and frames for client according to written optical prescription or specification. Assist client with selecting frames. Measure customer for size of eyeglasses and coordinate frames with facial and eye measurements and optical prescription. Prepare work order for optical laboratory containing instructions for grinding and mounting lenses in frames. Verify exactness of finished lens spectacles. Adjust frame and lens position to fit client. May shape or reshape frames.	Counter or Rental Clerk Customer Service Representative Eligibility Interviewer, Government Programs Host/Hostess, Restaurant, Lounge, or Coffee Shop Hotel, Motel, or Resort Desk Clerk Insurance Sales Agent Interviewer, except Eligibility or Loan New Account Clerk Ophthalmic Laboratory Technician
Optician (Male)	213	1981	37.8	15.2	See women's sample above. 19% had high school diploma, 7% attended vocational/technical school, 43% had some college, 13% completed associate degree, 15% bachelor's degree, 1% master's degree. 52% learned dispensing skills on job, 10% in school, 4% as apprentices, 2% in military, 31% combination. Employers included retail optical stores (38%), self-owned optical stores (35%), ophthalmologists (16%), hospitals (2%), department stores (2%). Major activities included combination of determining style and size of lens, fitting and adjusting lens, and analyzing prescriptions. No one who spent more than 25% of time attending to administrative details was included in sample.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Optometrist (Female)	191	1979	38.0	11.8	Members of American Optometric Association. 60% were self-employed or in partnership, 11% were employed by clinics or hospitals, 13% combination. 75% reported private practice as major activity.	29-1041.00	Diagnose, manage, and treat conditions and diseases of the human eye and visual system. Examine eyes and visual system, diagnose problems or impairments, prescribe corrective lenses, and provide treatment.	Dental Assistant Ophthalmic Laboratory Technician Orthodontist Physician Assistant Prosthodontist Respiratory Therapist
Optometrist (Male)	220	1979	39.7	14.2	See women's sample above. 83% were self-employed or in partnership. 93% reported private practice as major activity.		May prescribe therapeutic drugs to treat specific eye conditions.	
Paralegal (Female)	488	1993	37.7	9.9	Members of National Federation of Paralegal Associations. 5% had high school diploma or attended trade/technical school in addition, 39% some college or associate degree, 48% completed bachelor's degree, 6% master's degree. 73% were employed in private law firm, 19% in corporate law department, 3% in government agency, 4% other.	23-2011.00	Assist lawyers by researching legal precedent, investigating facts, or preparing legal documents. Conduct research to support a legal proceeding, to formulate a defense, or to initiate legal action.	Court Clerk Law Clerk Lawyer Legal Secretary Loan Interviewer or Clerk Municipal Clerk Tax Preparer Title Examiner, Abstractor, or Searcher
Paralegal (Male)	120	1993	38.2	8.2	See women's sample above. 2% attended trade/technical school, 34% had some college or associate degree, 48% completed bachelor's degree, 13% master's degree, 2% professional degree. 62% were employed in private law firm, 11% in corporate law department, 6% in court system, 4% in government agency, 17% other.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Parks & Recreation Manager (Female)	714	1993	37.1	13.0	Members of National Recreation Park Association. 4% had some college or associate degree, 60% completed bachelor's degree, 28% master's degree, 5% doctorate. 65% were employed by government, 16% by healthcare facility, 8% by educational institution, 8% by other nonprofit institutions. Major activities included administration, community/public contact, and education/training.	39-9032.00	Conduct recreation activities with groups in public, private, or volunteer agencies or recreation facilities. Organize and promote activities such as arts and crafts, sports, games, music, dramatics, social recreation, camping, and hobbies, taking into account the needs and interests of individual members.	First-Line Supervisor/Manager of Food Preparation or Serving Workers First-Line Supervisor/Manager of Office or Administrative Support Workers First-Line Supervisor/Manager of Personal Service Workers
Parks & Recreation Manager (Male)	900	1993	42.9	18.3	See women's sample above. 5% had some college or associate degree, 51% completed bachelor's degree, 35% master's degree, 8% doctorate. 84% were employed by government, 8% by educational institution. Major activities included administration, community/public contact, and education/training.			Meeting or Convention Planner Preschool Teacher, except Special Education Recreation Worker Special or Community Service Manager
Personal Financial Advisor (Female)	59	2009	38.3	9.7	Sample collected from CPP commercial and research databases. 36% completed bachelor's degree, 14% master's degree, 2% professional degree.	13-2052.00	Advise clients on financial plans utilizing knowledge of tax and investment strategies, securities, insurance, pension plans, and real estate. Duties include assessing clients' assets, liabilities, cash flow, insurance coverage, tax status, and financial objectives to establish investment strategies.	Assessor Bill or Account Collector Cost Estimator Credit Analyst
Personal Financial Advisor (Male)	133	2009	39.5	10.0	See women's sample above. 48% completed bachelor's degree, 26% master's degree, 4% professional degree, 2% doctorate.			Financial Analyst Insurance Adjuster, Examiner, or Investigator Insurance Appraiser, Auto Damage Purchasing Agent, except Wholesale, Retail, or Farm Products Tax Preparer

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Pharmacist (Female)	321	1992	36.0	11.9	Members of American Pharmaceutical Association. 65% completed bachelor's degree, 8% master's degree, 23% professional degree, 4% doctorate. 28% were employed by chain pharmacies, 24% by hospital pharmacies, 17% by independent pharmacies, 5% by grocery/discount store pharmacies. Major activities included dispensing, consultation with other health professionals, administration/supervision/management, and patient counseling.	29-1051.00	Compound and dispense medications following prescriptions issued by physicians, dentists, or other authorized medical practitioners.	Anesthesiologist Medical or Clinical Laboratory Technologist Nuclear Medicine Technologist Physician Assistant Podiatrist Respiratory Therapist
Pharmacist (Male)	370	1992	45.7	21.5	See women's sample above. 62% completed bachelor's degree, 12% master's degree, 21% professional degree, 5% doctorate. 33% were employed by independent pharmacies, 19% by hospital pharmacies, 12% by chain pharmacies, 7% by grocery/discount store pharmacies, 6% by educational institutions. Major activities included dispensing, consultation with other health professionals, and administration/supervision/management.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Photographer (Female)	249	1978	36.9	10.9	Members of Professional Photographers of America, National Press Photographers Association, and Society of Photographers in Communication. 21% had high school diploma, 38% completed bachelor's degree, 13% master's degree. 35% received training on job, 23% from photography courses not leading to degree, 14% from degree courses, 28% combination. 51% were self-employed or in partnerships; remainder were employed by studios, businesses, newspapers, magazines, or combination.	27-4021.00	Photograph persons, subjects, merchandise, or other commercial products. May develop negatives and produce finished prints.	Camera Operator, Television, Video, or Motion Picture Film or Video Editor Photographic Process Worker Set or Exhibit Designer Sound Engineering Technician
Photographer (Male)	161	1978	38.9	15.1	See women's sample above. 24% had high school diploma, 10% completed associate degree, 31% bachelor's degree. 44% received training on job, 15% from photography courses not leading to degree, 20% from degree courses, 22% from combination. 56% were self-employed or in partnerships; 14% were employed by newspapers or magazines, remainder were employed by studios, businesses, or combination.			
Physical Therapist (Female)	715	1992	36.5	12.8	Members of American Physical Therapy Association. 63% completed bachelor's degree, 32% master's or professional degree, 3% doctorate. 36% worked in hospitals, 23% in private offices, 14% in educational institutions, 10% in home health agencies, 8% in extended care facilities or nursing homes.	29-1123.00	Assess, plan, organize, and participate in rehabilitative programs that improve mobility, relieve pain, increase strength, and decrease or prevent deformity of patients suffering from disease or injury.	Athletic Trainer Child, Family, or School Social Worker Respiratory Therapist
Physical Therapist (Male)	543	1992	40.1	15.3	See women's sample above. 61% completed bachelor's degree, 35% master's or professional degree, 3% doctorate. 45% worked in private offices, 28% in hospitals, 7% in extended care facilities or nursing homes, 6% in home health agencies, 6% in educational institutions.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Physician (Female)	211	1982	38.8	9.4	National sample from mail list company, and members of American College of Physicians. 26% practiced medicine in small private clinics (less than 5 physicians), 14% in public hospitals, 11% in private hospitals, 8% in HMO clinics, 6% for government, 3% in large private clinics (more than 5 physicians), 19% other, 10% combination. Specialties included general/family practitioner, internist, pediatrician, anesthesiologist, gynecologist/obstetrician, neurologist, pathologist, radiologist, dermatologist, allergist, medical researcher, and college professor. Major activities included patient consultation and examination (33%), diagnosis and treatment (13%), research (8%), surgery (2%), other (7%), combination (31%).	29-1062.00	Diagnose, treat, and help prevent diseases and injuries that commonly occur in the general population.	Physician Assistant Podiatrist Registered Nurse Surgeon Veterinarian
Physician (Male)	272	1982	40.9	10.8	See women's sample above. 33% practiced medicine in small private clinics (less than 5 physicians), 13% in private hospitals, 12% in large private clinics (more than 5 physicians), 10% in public hospitals, 8% other, 12% combination. Specialties included general/family practitioner, cardiologist, internist, pediatrician, urologist, pathologist, radiologist, otolaryngologist, anesthesiologist, gynecologist/obstetrician, dermatologist, surgeon, medical researcher, and college professor. Major activities included patient consultation and examination (32%), diagnosis and treatment (19%), research (9%), surgery (5%), combination (26%).			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Physicist (Female)	348	1992	43.3	15.8	Members of American Physical Society. All had doctorate. 53% were employed by 4-year colleges and universities, 16% by national laboratories, 13% by private industry, 13% by 2-year colleges, 7% by government agencies.	19-2012.00	Conduct research into the phases of physical phenomena, develop theories and laws on the basis of observation and experiments, and devise methods to apply laws and theories to industry and other fields.	Astronomer Atmospheric or Space Scientist Geophysical Data Technician Geoscientist, except Hydrologist or Geographer Hydrologist
Physicist (Male)	483	1992	47.1	19.7	See women's sample above. All had doctorate. 42% were employed by 4-year colleges and universities, 22% by private industry, 18% by national laboratories, 13% by 2-year colleges, 7% by government agencies, 5% were self-employed.			Mining or Geological Engineer, including Mining Safety Engineer Petroleum Engineer Physics Teacher, Postsecondary
Production Worker (Female)	147	2003	40.1	14.7	Sample collected from CPP database. 7% had some high school, 36% high school diploma, 5% trade/technical training in addition, 20% some college, 9% completed associate degree, 17% bachelor's degree, 4% master's or professional degree, 1% doctorate.	51-9199.00	Perform various duties in a production or packaging area, such as operating machinery, assembling, packaging products for distribution, or inspecting products for quality.	Assembler Fabricator Factory Worker Machine Operator Precision Worker Production Helper Production Inspector
Production Worker (Male)	190	2003	41.1	13.8	See women's sample above. 2% had some high school, 19% high school diploma, 11% trade/technical training in addition, 24% some college, 15% completed associate degree, 22% bachelor's degree, 6% master's or professional degree, 1% doctorate.			Quality Control Worker Warehouse Worker

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Psychologist (Female)	179	2009	44.5	15.3	Sample collected from the American Counseling Association, the American Psychological Association, and CPP commercial and research databases. 2% completed bachelor's degree, 22% master's degree, 1% professional degree, 73% doctorate.	Scale built from a combination of the following O*NET codes: 19-3031.02 19-3031.03 19-3032.00 19-3039.00	Diagnose and treat mental disorders, learning disabilities, and cognitive, behavioral, and emotional problems using individual, child, family, and group therapies. May design and implement behavior modification programs.	Developmental Psychologist Educational Psychologist Experimental Psychologist Forensic Psychologist Psychiatrist Research Psychologist School Psychologist Social Psychologist Sports Psychologist
Psychologist (Male)	135	2009	50.4	21.3	See women's sample above. 2% completed bachelor's degree, 11% master's degree, 1% professional degree, 85% doctorate.			
Public Administrator (Female)	201	1979	37.7	9.0	Members of American Society for Public Administration. 22% completed bachelor's degree, 65% master's degree. 69% were employed by government agencies, 11% by educational institutions.	No specific O*NET code See 11-1011.00 (Chief Executive).	Determine and formulate policies and provide overall direction of federal, state, local, or international government activities, as well as educational institutions. Plan, direct, and coordinate operational activities at the highest level of management with the help of subordinate managers.	City Manager Community Organization Director Correctional Agency Director County Administrator Economic Development Director Employment Service Director Management Analyst Public Health Administrator Public Works Commissioner Zoning Director
Public Administrator (Male)	216	1979	38.0	11.7	See women's sample above. 17% completed bachelor's degree, 73% master's degree. 82% were employed by government agencies, 5% by educational institutions.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Public Relations Director (Female)	403	1992	38.8	12.4	Members of Public Relations Society of America. 5% had some college or associate degree, 66% completed bachelor's degree, 28% master's degree, 1% doctorate. 23% were employed in business/industry, 13% in public relations or consulting firms, 13% were self-employed, 12% were employed in educational institutions, 7% in health/medical institutions, 7% in government agencies, 16% in other nonprofit organizations. Major activities included writing/editing, administration/supervision, internal consultation, and media relations.	11-2031.00	Plan and direct public relations programs designed to create and maintain a favorable public image for employer or client; or, if engaged in fundraising, plan and direct activities to solicit and maintain funds for special projects and nonprofit organizations.	Campaign Manager Communications Specialist Community Relations Director Fundraising Director Information Services Director Lobbyist Marketing Manager Media Relations Consultant Promoter Public Affairs Manager Sports Information Director
Public Relations Director (Male)	291	1992	47.0	20.6	See women's sample above. 4% had some college or associate degree, 55% completed bachelor's degree, 35% master's degree, 2% professional degree, 4% doctorate. 27% were employed in business/industry, 19% in public relations or consulting firms, 14% were self-employed, 10% were employed in educational institutions, 9% in government agencies, 16% in other nonprofit organizations. Major activities included writing/editing, administration/supervision, internal consultation, and media relations.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Purchasing Agent (Female)	247	1983	38.3	7.8	Members of National Institute of Governmental Purchasing, members of National Association, and write-in responses to articles in purchasing publications. 15% had high school diploma, 50% some college, 7% completed associate degree, 21% bachelor's degree, 2% master's degree. 33% saw themselves as senior buyer, 31% as chief purchasing officer, 7% as assistant purchasing officer, 7% as supervisory buyer, 7% as junior buyer. Sample consisted of purchasers and buyers for industrial, commercial, and utility firms; educational institutions; and government agencies.	13-1023.00	Purchase machinery, equipment, tools, parts, supplies, or services necessary for the operation of an establishment. Purchase raw or semi-finished materials for manufacturing.	Cost Estimator Credit Analyst Customer Service Representative Insurance Adjuster, Examiner, or Investigator Insurance Appraiser, Auto Damage Procurement Clerk
Purchasing Agent (Male)	224	1979	41.2	11.2	See women's sample above. 27% had some college education, 44% completed bachelor's degree, 18% master's degree.			
R&D Manager (Female)	201	1983	37.7	5.4	National sample from Hugo Dunhill Mailing Lists file on women R&D managers, and from nine U.S. Navy laboratories. 45% completed bachelor's degree, 30% master's degree, 25% doctorate. Educational background by general area was 45% life sciences, 34% physical sciences, 11% mathematics and computer sciences, 10% engineering. Management level included lower (34%), middle (43%), upper (18%), vice president (5%). Collected by R. Hill, University of Michigan.	No specific O*NET code See 11-9121.00 (Natural Science Manager).	Direct and coordinate activities concerned with research and development of new concepts and ideas for products or services. Plan and formulate aspects of research and development proposals. Review and analyze proposals to determine whether benefits justify expenditures. Develop and implement process for monitoring approved projects.	Market Research Director Product Development Manager Product Research Director Research and Development Engineer
R&D Manager (Male)	215	1983	44.8	10.9	From R&D departments of a broad range of scientific and engineering-based firms. 38% completed bachelor's degree, 31% master's degree, 31% doctorate. Educational background by general area was 57% engineering, 27% physical sciences, 10% life sciences, 6% mathematics and computer sciences. Management included lower (11%), middle (45%), upper (39%), vice president (5%). Collected by R. Hill, University of Michigan.			

Occupational Scale Samples, O*NET2 Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Radiologic Technologist (Female)	543	1993	38.2	15.0	From American Registry of Radiologic Technologists. All were registered technologists. 32% attended trade/technical school in addition to high school, 48% had some college or associate degree, 14% completed bachelor's degree, 1% master's degree. 77% were employed in hospitals or clinics, 20% in private offices. Specialties included radiography (46%), mammography (13%), magnetic resonance (10%), computed tomography (8%), nuclear medicine (7%).	29-2034.00	Take X-rays and CAT scans or administer nonradioactive materials into patient's bloodstream for diagnostic purposes. Includes technologists who specialize in other modalities such as computed tomography, ultrasound, and magnetic resonance.	Cardiovascular Technologist or Technician Dental Assistant Dental Hygienist Nuclear Medicine Technologist Prosthodontist Radiation Therapist Radiologic Technician Respiratory Therapist
Radiologic Technologist (Male)	430	1993	39.1	14.6	See women's sample above. All were registered technologists. 14% attended trade/technical school in addition to high school, 56% had some college or associate degree, 20% completed bachelor's degree, 5% master's degree, 1% professional degree. 82% were employed in hospitals or clinics, 9% in private offices. Specialty areas included radiography (40%), administration (12%), computed tomography (11%), magnetic resonance (11%), cardiovascular intervention (10%), radiation therapy (7%).			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Realtor (Female)	99	2009	43.9	10.2	Sample collected from CPP commercial and research databases. 30% completed bachelor's degree, 7% master's degree.	41-9022.00	Rent, buy, or sell property for clients. Perform duties such as study property listings, interview prospective clients, accompany clients to property site, discuss conditions of sale, and draw up real estate contracts. Includes agents who represent buyer.	Advertising Sales Agent Driver/Sales Worker Insurance Sales Agent Sales Representative, Wholesale or Manufacturing, Technical or Scientific Products
Realtor (Male)	208	1983	41.7	8.9	National sample, members of National Association of Realtors. 25% had high school diploma, 11% completed associate degree, 47% bachelor's degree, 12% master's degree, 2% doctorate. 45% were self-employed or in partnerships, 46% were employed by real estate firms. Sales specialty areas included residential (48%), commercial (5%), combination of residential and commercial (40%). Major activities included obtaining listings (9%), learning about properties (6%), showing properties (6%), arranging details of transaction (6%), combination (59%).			
Recreation Therapist (Female)	102	2003	38.0	12.2	Mailing list of members of National Therapeutic Recreation Society, members of American Therapeutic Recreation Association, and National Council for Therapeutic Recreation Certification. 1% had trade/technical training, 1% some college, 67% completed bachelor's degree, 26% master's degree, 1% professional degree, 4% doctorate.	29-1125.00	Plan, direct, or coordinate medically approved recreation programs for patients in hospitals, nursing homes, or other institutions. Activities include sports, trips, dramatics, social activities, and arts and crafts. May assess a patient condition and recommend appropriate recreational activity.	Child, Family, or School Social Worker Occupational Therapist Physical Therapist
Recreation Therapist (Male)	106	2003	41.4	8.6	See women's sample above. 1% completed associate degree, 57% bachelor's degree, 35% master's degree, 1% professional degree, 6% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Registered Nurse (Female)	256	2009	45.0	17.8	Sample collected from CPP commercial and research databases. 44% completed bachelor's degree, 16% master's degree, less than 1% professional degree, 1% doctorate.	29-1141.00	Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients.	Chiropractor Medical Assistant Nursing Instructor or Teacher, Postsecondary Podiatrist
Registered Nurse (Male)	704	1992	41.2	14.0	See women's sample above. 1% had high school diploma, 22% some college or associate degree, 35% completed bachelor's degree, 37% master's degree, 2% professional degree, 4% doctorate. 73% were employed by hospitals, 6% by schools of nursing, 6% by physician's offices or ambulatory care clinics, 4% by home health agencies, 3% by military, 3% were self-employed.		May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. Includes advance practice nurses such as nurse practitioners, clinical nurse specialists, certified nurse midwives, and certified registered nurse anesthetists. Advanced practice nursing is practiced by RNs who have specialized formal, postbasic education and who function in highly autonomous and specialized roles.	Psychiatric Aide Surgeon
Rehabilitation Counselor (Female)	310	2003 and 2009	43.9	12.0	Sample collected from the American Counseling Association and CPP commercial and research databases. A portion of the sample was also taken from the 2004 <i>Strong</i> revision. 14% completed bachelor's degree, 82% master's degree, less than 1% professional degree, 3% doctorate.	21-1015.00	Counsel individuals to maximize the independence and employability of persons coping with personal, social, and vocational difficulties that result from birth defects, illness, disease, accidents, or the stress of daily life. Coordinate activities for residents of care and treatment facilities. Assess client needs and design and implement rehabilitation programs that may include personal and vocational counseling, training, and job placement.	Employment Counselor Occupational Therapist Psychosocial Rehabilitation Counselor School Counselor Veterans Rehabilitation Counselor Vocational Nurse Vocational Rehabilitation Counselor
Rehabilitation Counselor (Male)	132	2003 and 2009	47.7	12.6	See women's sample above. 13% completed bachelor's degree, 79% master's degree, 1% professional degree, 5% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Religious/Spiritual Leader (Female)	95	2009	41.2	11.2	Sample collected from CPP commercial and research databases. 34% completed bachelor's degree, 46% master's degree, 5% professional degree, 3% doctorate.	Scale built from a combination of the following O*NET codes: 21-2011.00 21-2021.00 21-2099.00	Conduct religious worship and perform other spiritual functions associated with beliefs and practices of religious faith or denomination. Provide spiritual and moral guidance and assistance to members. Direct and coordinate activities of a denominational group to meet religious needs of students. Plan, direct, or coordinate church school programs designed to promote religious education among church membership. May provide counseling and guidance on marital, health, financial, and religious problems.	Child, Family, or School Social Workers Counseling Psychologists Curators Education Administrator, Elementary, or Elementary School Teacher, except Special Education Health Educator Kindergarten Teacher, except Special Education Occupational Therapist Recreational Therapist Sociologist Vocational Education Teacher, Postsecondary
Religious/Spiritual Leader (Male)	152	2009	42.7	16.1	See women's sample above. 32% completed bachelor's degree, 41% master's degree, 9% professional degree, 7% doctorate.			
Reporter (Female)	207	1979	38.0	10.7	From <i>Alphabetized Directory of American Journalists</i> . All those selected indicated "reporter" or "writer" as job title. Also members of National Federation of Press Women. 15% had high school diploma, 69% completed bachelor's degree, 14% master's degree.	27-3022.00	Collect and analyze facts about newsworthy events by interview, investigation, or observation. Report and write stories for newspaper, news magazine, radio, or television.	Broadcast News Analyst Editor Poet, Lyricist, or Creative Writer Public Address System or other Announcer Radio or Television Announcer Technical Writer
Reporter (Male)	208	1979	35.3	11.9	See women's sample above. All those selected indicated "reporter" or "writer" as job title. 14% had high school diploma, 72% completed bachelor's degree, 12% master's degree.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Respiratory Therapist (Female)	216	1983	33.0	7.1	Members of American Association for Respiratory Therapy. All were staff therapists. 4% had certificate from vocational school, 7% some college, 56% completed associate degree, 33% bachelor's degree. 94% were employed by hospitals: 53% in intensive care, 16% in respiratory therapy unit, 22% other. Major activities included implementation of treatment programs (51%), emergency care (11%), giving instruction (5%), pulmonary lab work (4%), combination (23%). 88% were registered or certified therapists. 34% specialized in area of pulmonary care, including newborn intensive care, pulmonary rehabilitation, critical care, and geriatric care.	29-1126.00	Assess, treat, and care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities, including the supervision of respiratory therapy technicians. Initiate and conduct therapeutic procedures, maintain patient records, and select, assemble, check, and operate equipment.	Dental Hygienist Optometrist Orthodontist Physical Therapist Physician Assistant Surgical Technologist
Respiratory Therapist (Male)	206	1983	31.8	7.4	See women's sample above. 3% had certificate from vocational school, 9% some college, 49% completed associate degree, 34% bachelor's degree 86% were employed by hospitals: 54% in intensive care, 15% in respiratory therapy unit, 18% other. Major activities included implementation of treatment programs (43%), administrative duties (9%), emergency care (7%), pulmonary lab work (6%), giving instruction (4%), combination (28%). 92% were registered or certified therapists. 42% specialized in area of pulmonary care, including newborn intensive care, pulmonary rehabilitation, critical care, and geriatric care.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Restaurant Manager (Female)	152	1984	37.4	10.0	Members of National Restaurant Association, and national sampling from Bell Yellow Pages. 24% had high school diploma, 27% some college, 9% completed associate degree, 31% bachelor's degree, 6% master's degree. 37% were restaurant owners, 63% held management positions. Major activities included customer contact (26%), personnel management (17%), record keeping and financial planning (9%), combination (41%).	35-1012.00	Supervise workers engaged in preparing and serving food.	Chef or Head Cook Dietetic Technician Dietitian or Nutritionist Farm or Home Management Advisor First-Line Supervisor/Manager of Housekeeping or Janitorial Workers First-Line Supervisor/Manager of Landscaping, Lawn Service, or Groundskeeping Workers
Restaurant Manager (Male)	192	1984	38.8	14.3	See women's sample above. 18% had high school diploma, 26% some college, 10% completed associate degree, 43% bachelor's degree, 3% master's degree. 49% were restaurant owners, 41% held management positions. Major activities included customer contact (25%), personnel management (23%), record keeping and financial planning (11%), combination (38%).			First-Line Supervisor/Manager of Personal Service Workers Food and Service Manager
Sales Manager (Female)	127	2009	40.5	14.4	Sample collected from CPP commercial and research databases. 47% completed bachelor's degree, 21% master's degree, 1% professional degree.	11-2022.00	Direct the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives.	Agent or Business Manager of Artists, Performers, or Athletes Education Administrator, Elementary or Secondary School
Sales Manager (Male)	264	2009	41.5	14.9	See women's sample above. 53% completed bachelor's degree, 20% master's degree, 1% professional degree, 1% doctorate.		Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.	Logging Manager Marketing Manager Training and Development Specialist Wholesale or Retail Buyer, except Farm Products

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
School Administrator (Female)	347	1992	48.6	22.3	Members of American Association of School Administrators. 42% completed master's degree, 8% professional degree, 49% doctorate. 43% worked in public schools, 36% in public school district office, 4% in county office of education, 3% in state office of education, 1% in private or parochial schools.	11-9032.00	Plan, direct, or coordinate the academic, clerical, or auxiliary activities of public or private elementary or secondary schools.	Education Administrator, Postsecondary First-Line Supervisor/Manager of Office or Administrative Support Workers Instructional Coordinator Management Analyst Social or Community Service Manager Training and Development Manager Training and Development Specialist
School Administrator (Male)	314	1992	61.2	32.3	See women's sample above. 30% completed master's degree, 7% professional degree, 62% doctorate. 43% worked in public schools, 31% in public school district office, 4% in county office of education, 3% in state office of education.			
School Counselor (Female)	208	1982	42.3	10.3	High school guidance counselors, all members of American Association for Counseling and Development. 89% completed master's degree, 1% Ph.D., 1% Ed.D. Average of 49% of workday was spent counseling students. Major areas of interest included crisis and personal counseling (27%), class scheduling (16%), graduation requirements (10%), pre-college/vocational school counseling (7%), career counseling (7%), combination (30%).	21-1012.00	Counsel individuals and provide group educational and vocational guidance services.	Career Counselor Child, Family, or School Social Worker Health Educator Probation Officer or Correctional Treatment Specialist School Psychologist
School Counselor (Male)	266	1982	42.3	12.5	See women's sample above. 2% completed bachelor's degree, 79% master's degree, 6% Ph.D., 5% Ed.D. Average of 48% of workday was spent counseling students. Major areas of counseling included class scheduling (20%), crisis and personal counseling (18%), pre-college/vocational school counseling (11%), career counseling (10%), graduation requirements (8%), combination (31%).			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Science Teacher (Female)	213	1983	38.7	12.3	List from National Science Teachers Association, U.S. Registry. 32% completed bachelor's degree, 65% master's degree. All were high school teachers; 84% taught more than one grade. 55% taught primarily biology, 16% chemistry, 9% general science, 5% physics, 14% mixed. Other subjects included physiology, environmental science, geology, astronomy, and botany. 92% of sample spent minimum of 40% of time teaching. Other activities included lesson preparation, grading, meetings, conferences. 28% were involved in other school activities relating to subject taught.	25-2031.00	Instruct students in secondary public or private schools in subjects such as biological sciences, chemistry, and physics.	Astronomy Teacher Biology Teacher Chemistry Teacher Earth Science Teacher Environmental Science Teacher Geology Teacher Health Science Teacher Marine Science Teacher Physics Teacher Physiology Teacher
Science Teacher (Male)	237	1983	39.5	14.7	See women's sample above. 30% completed bachelor's degree, 66% master's degree, 2% doctorate, 3% other. All were high school teachers; 89% taught more than one grade. 45% taught primarily biology, 18% chemistry, 12% general science, 9% physics, 14% mixed. Other subjects included physiology, environmental science, geology, astronomy, and botany. 96% of sample spent minimum of 40% of time teaching. Other activities included lesson preparation, grading, meetings, conferences. 17% were involved in other school activities relating to subject taught.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	<i>N</i>	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Secondary School Teacher (Female)	288	2009	36.5	9.8	Sample collected from the American Counseling Association and CPP commercial and research databases. 60% completed bachelor's degree, 36% master's degree, less than 1% professional degree.	25-2031.00	Instruct students in secondary public or private schools in one or more subjects at the secondary level, such as English, mathematics, or social studies. May be designated according to subject matter specialty, such as typing instructor, commercial teacher, or English teacher.	Coach and Scout Elementary School Teacher, except Special Education Health Educator Instructional Coordinator
Secondary School Teacher (Male)	132	2009	37.7	10.4	See women's sample above. 45% completed bachelor's degree, 52% master's degree, 1% professional degree.			Teacher's Assistant Vocational Education Teacher, Postsecondary
Securities Sales Agent (Female)	49	2009	39.8	11.5	Sample collected from CPP commercial and research databases. 51% completed bachelor's degree, 8% master's degree.	41-3031.01	Buy and sell securities in investment and trading firms and develop and implement financial plans for individuals, businesses, and organizations.	Market Research Analyst Purchasing Agent or Buyer, Farm Products
Securities Sales Agent (Male)	96	2009	38.9	11.3	See women's sample above. 66% completed bachelor's degree, 16% master's degree, 1% professional degree.			Purchasing Manager Real Estate Sales Agent Sales Agent, Financial Services Sales Representative, Wholesale or Manufacturing, except Technical or Scientific Products Wholesale or Retail Buyer, except Farm Products

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Social Worker (Female)	260	2009	35.4	8.5	Sample collected from CPP commercial and research databases. 57% completed bachelor's degree, 25% master's degree, less than 1% professional degree, 1% doctorate.	Scale built from a combination of the following O*NET codes: 21-1021.00 21-1022.00 21-1023.00 21-1029.00	Provide social services and assistance to improve the physical, mental, emotional, or social functioning of children, adults, or families with mental or physical illnesses or substance abuse problems.	Child Welfare Caseworker Community Service Worker Family Caseworker Geriatric Social Worker Marriage Counselor Medical Social Worker Parole Officer
Social Worker (Male)	58	2009	34.8	8.5	See women's sample above. 55% completed bachelor's degree, 24% master's degree, 3% doctorate.			
Sociologist (Female)	210	1974	42.2	11.2	Members of American Sociological Association; all had doctorate. Major activities included teaching (48%), research (15%), administration (9%), combination (24%).	19-3041.00	Study human society and social behavior by examining the groups and social institutions that people form, as well as various social, religious, political, and business organizations. May study the behavior and interaction of groups, trace their origin and growth, and analyze the influence of group activities on individual members.	Anthropologist Education Administrator, Elementary or Secondary School Elementary School Teacher, except Special Education Political Scientist School Psychologist Urban or Regional Planner
Sociologist (Male)	212	1974	40.3	11.4	See women's sample above. Major activities included teaching (45%), research (17%), administration (15%), combination (21%).			
Software Developer (Female)	82	2009	39.2	13.5	Sample collected from CPP commercial and research databases. 54% completed bachelor's degree, 31% master's degree.	15-1132.00	Develop, create, and modify general computer applications software or specialized utility programs. Analyze user needs and develop software solutions. Design software or customize software for client use with the aim of optimizing operational efficiency. May analyze and design databases within an application area, working individually or coordinating database development as part of a team.	Aerospace Engineering or Operations Technician Computer, Automated Teller, or Office Machine Repairer Computer Science Teacher, Postsecondary Computer Support Specialist Electrical or Electronic Drafter Electronics Repairer, Commercial or Industrial Equipment Mathematical Technician Numerical Tool or Process Control Programmer
Software Developer (Male)	178	2009	38.6	14.3	See women's sample above. 53% completed bachelor's degree, 27% master's degree, 1% professional degree, 4% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Special Education Teacher (Female)	161	2009	37.7	11.0	Sample collected from CPP commercial and research databases. 44% completed bachelor's degree, 42% master's degree, 1% professional degree.	Scale built from a combination of the following O*NET codes:	Teach preschool, elementary, middle, and secondary school subjects to educationally and physically handicapped students. Includes teachers who specialize in and work with audibly or visually handicapped students and those who teach basic academic and life process skills to the mentally impaired.	Educational, Vocational, or School Counselor Health Educator Kindergarten Teacher, except Special Education School Psychologist
Special Education Teacher (Male)	221	1993	42.9	17.1	From commercially compiled national listing. 33% completed bachelor's degree, 66% master's degree, 1% professional degree, 1% doctorate. 96% worked in public schools. Areas of specialization included learning disabilities (40%), mental retardation (18%), behavioral disorders (13%), gifted and talented (10%).	25-2041.00 25-2042.00 25-2043.00		
Speech Pathologist (Female)	425	1992	39.3	13.4	Speech pathologist members of American Speech-Language-Hearing Association. 93% completed master's degree, 1% professional degree, 5% doctorate. 55% were employed by elementary or secondary schools, 15% by hospitals, 6% by residential care facilities, 6% by colleges and universities, 6% by speech-language pathologist or audiologist offices.	29-1127.00	Assess and treat persons with speech, language, voice, and fluency disorders. May select alternative communication systems and teach their use. May perform research related to speech and language problems.	Health Educator Occupational Therapist Physical Therapist Recreational Therapist Respiratory Therapist
Speech Pathologist (Male)	334	1992	46.6	19.8	See women's sample above. 64% completed master's degree, 36% doctorate. 33% were employed by elementary or secondary schools, 23% by hospitals, 18% by colleges and universities, 7% by residential healthcare facilities, 7% by speech-language pathologist or audiologist offices.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Technical Sales Representative (Female)	56	2009	38.8	11.5	Sample collected from CPP commercial and research databases. 48% completed bachelor's degree, 21% master's degree, 2% professional degree.	41-4011.00	Sell goods for wholesalers or manufacturers where technical or scientific knowledge is required in such areas as biology, engineering, chemistry, and electronics, normally obtained from at least 2 years of post-secondary education.	Advertising Sales Agent Demonstrator or Product Promoter Insurance Sales Agent Parts Salesperson Real Estate Sales Agent Retail Salesperson Sales Agent, Financial Services Sales Representative, Wholesale or Manufacturing, except Technical or Scientific Products
Technical Sales Representative (Male)	105	2009	38.8	13.2	See women's sample above. 62% completed bachelor's degree, 8% master's degree, 2% professional degree.			
Technical Support Specialist (Female)	132	2009	40.5	12.0	Sample collected from CPP commercial and research databases. 40% completed bachelor's degree, 8% master's degree, 1% professional degree.	15-1151.00	Provide technical assistance to computer system users. Answer questions or resolve computer problems for clients in person, via telephone, or from remote location. May provide assistance concerning the use of computer hardware and software, including printing, installation, word processing, electronic mail, and operating systems.	Broadcast Technician Computer, Automated Teller, or Office Machine Repairer Computer Operator Computer Programmer Computer Security Specialist Computer Systems Analyst Electrical or Electronics Repairer, Commercial or Industrial Equipment Network Systems or Data Communications Analyst Numerical Tool or Process Control Programmer
Technical Support Specialist (Male)	195	2009	37.8	12.0	See women's sample above. 34% completed bachelor's degree, 12% master's degree, 1% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Technical Writer (Female)	350	1992	39.2	8.8	Members of Society for Technical Communication. 11% had some college or associate degree, 55% completed bachelor's degree, 30% master's degree, 3% doctorate. 60% were employed by business/industry, 13% by consulting firms, 14% were self-employed, 6% were employed by educational institutions, 5% by government agencies. Areas of specialization included product documentation (69%), online documentation (5%), technical reports (9%).	27-3042.00	Write technical materials such as equipment manuals, appendices, or operating and maintenance instructions. May assist in layout work.	Broadcast News Analyst Editor Poet, Lyricist, or Creative Writer Radio or Television Announcer Reporter or Correspondent
Technical Writer (Male)	274	1992	42.6	12.2	See women's sample above. 15% had some college or associate degree, 51% completed bachelor's degree, 26% master's degree, 5% doctorate. 69% were employed by business/industry, 7% by consulting firms, 15% were self-employed, 3% were employed by educational institutions, 3% by government agencies. Areas of specialization included product documentation (74%), online documentation (8%), technical reports (6%), promotional writing (6%).			
Top Executive, Business/Finance (Female)	152	2009	46.3	18.0	Sample collected from the American Psychological Association and CPP commercial and research databases. 30% completed bachelor's degree, 40% master's degree, 2% professional degree, 5% doctorate.	No specific O*NET code See 11-1011.00 (Chief Executive).	Plan, direct, and coordinate business and financial operational activities at the highest level of management with the help of subordinate managers.	Chief Executive Officer Chief Financial Officer Government Service Executive Private Sector Executive
Top Executive, Business/Finance (Male)	459	2009	47.6	20.8	See women's sample above. 39% completed bachelor's degree, 41% master's degree, 4% professional degree, 4% doctorate.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Training & Development Specialist (Female)	202	2009	40.4	12.6	Sample collected from the American Psychological Association and CPP commercial and research databases. 32% completed bachelor's degree, 34% master's degree, 1% professional degree, 5% doctorate.	13-1151.00	Conduct training and development programs for employees. Plan, direct, or coordinate the training and development activities and staff of an organization.	First-Line Supervisor/Manager of Office or Administrative Support Workers Human Resources, Training, and Labor Relations Specialists
Training & Development Specialist (Male)	86	2009	43.9	14.6	See women's sample above. 34% completed bachelor's degree, 40% master's degree, 1% professional degree, 12% doctorate.			Instructional Coordinator Management Analyst Recreation Worker Training and Development Managers
Translator (Female)	475	1993	43.1	13.0	Members of American Translators Association. 2% attended trade/technical school, 11% had some college or associate degree, 36% completed bachelor's degree, 38% master's degree, 2% professional degree, 10% doctorate. 58% were self-employed, 12% worked in business/industry, 9% in educational institutions, 9% in government, 3% in translation firms, 3% in international organizations.	27-3091.00	Translate or interpret written, oral, or sign language text into another language for others.	Court Reporter Immigration or Customs Inspector Music Director Tour Guide or Escort Travel Guide
Translator (Male)	238	1993	48.2	16.2	See women's sample above. 10% had some college or associate degree, 27% completed bachelor's degree, 37% master's degree, 7% professional degree, 18% doctorate. 59% were self-employed, 12% worked in business/industry, 10% in educational institutions, 10% in government, 3% in translation firms, 3% in international organizations.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
University Administrator (Female)	904	2009	39.6	11.1	Sample collected from CPP commercial and research databases. 18% completed bachelor's degree, 67% master's degree, 2% professional degree, 11% doctorate.	11-9033.00	Plan, direct, or coordinate research, instructional, student administration and services, and other educational activities at postsecondary institutions, including universities, colleges, and junior and community colleges.	Chief Executive Education Administrator, Elementary or Secondary School First-Line Supervisor/Manager of Office or Administrative Support Workers Food Service Manager Human Resources Manager Instructional Coordinator Management Analyst Medical or Health Services Manager
University Administrator (Male)	320	2009	41.4	12.7	See women's sample above. 16% completed bachelor's degree, 57% master's degree, 4% professional degree, 21% doctorate.			
University Faculty Member (Female)	259	2009	47.1	17.1	Sample collected from CPP commercial and research databases. 4% completed bachelor's degree, 21% master's degree, 71% doctorate.	Scale built from a combination of the following O*NET codes:	Teach courses and/or conduct research in the following areas: business; mathematical science; engineering; agricultural science; biological science; forestry or conservation science; atmospheric earth, marine, or space science; chemistry; physics; area, ethnic, or cultural studies; economics; psychology; sociology; social science; health specialties; nursing; education; library science; criminal justice or law enforcement; law faculty; social work; art, drama, or music; communications; English language or literature; foreign language or literature; philosophy or religion; home economics; recreation or fitness studies; and vocational education.	Anthropologist Biological Technician Computer and Information Systems Manager Elementary School Teacher Historian Instructional Coordinator Physicist Teacher's Assistant Training and Development Manager
University Faculty Member (Male)	173	2009	52.6	22.9	See women's sample above. 2% completed bachelor's degree, 8% master's degree, 1% professional degree, 86% doctorate.	25-1011.00 25-1022.00 25-1032.00 25-1041.00 25-1042.00 25-1043.00 25-1051.00 25-1052.00 25-1054.00 25-1062.00 25-1063.00 25-1066.00 25-1067.00 25-1069.00 25-1071.00 25-1072.00 25-1081.00 25-1082.00 25-1111.00 25-1112.00 25-1113.00 25-1121.00 25-1122.00 25-1123.00 25-1124.00 25-1126.00 25-1192.00 25-1193.00 25-1194.00		

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

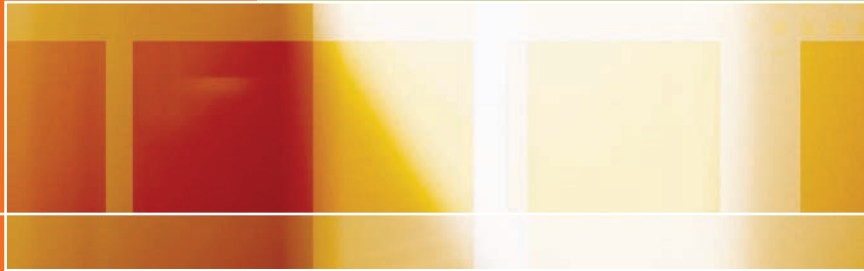
Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Urban & Regional Planner (Female)	101	2003	42.1	12.8	Mailing list of members from American Planning Association. 2% had some high school, 1% high school diploma, 4% trade/technical training or some college, 22% completed bachelor's degree, 61% master's degree, 4% professional degree, 6% doctorate.	19-3051.00	Develop comprehensive plans and programs for use of land and physical facilities of local jurisdictions, such as towns, cities, counties, and metropolitan areas.	Actuary Fish and Game Warden Political Scientist Sociologist Surveyor Traffic Technician
Urban & Regional Planner (Male)	108	2003	46.5	16.5	See women's sample above. 29% completed bachelor's degree, 56% master's degree, 5% professional degree, 9% doctorate.			
Veterinarian (Female)	459	1992	35.5	9.4	Members of American Veterinary Association. All had DVM degree, 4% had additional doctorate. 45% were employees in private practice, 34% were in own private practice, 11% worked in educational institutions, 5% in government agencies, 3% in industry. 53% specialized in small animals, 10% in large animals.	29-1131.00	Diagnose and treat diseases and dysfunctions of animals. May engage in a particular function, such as research and development, consultation, administration, technical writing, sale or production of commercial products, or rendering of technical services to commercial firms or other organizations. Includes veterinarians who inspect livestock.	Anesthesiologist Biological Technician Medical or Clinical Laboratory Technician Physician Assistant Podiatrist Veterinary Assistant or Laboratory Animal Caretaker Veterinary Technologist or Technician Zoologist or Wildlife Biologist
Veterinarian (Male)	327	1992	43.6	17.3	See women's sample above. All had DVM degree, 7% had additional doctorate. 75% had own private practice, 13% were employees in private practice, 13% worked in educational institutions, 6% in government, 2% in industry. 72% specialized in small animals, 9% in large animals.			

Occupational Scale Samples, O*NET™ Codes, and Related Job Titles

Sample/Scale	N	Year Data Collected	Mean Age	Mean Years Experience	Composition	O*NET Code(s)	Description	Related Occupations
Vocational Agriculture Teacher (Female)	135	1982	31.1	5.8	Collected with assistance of National Vocational Agriculture Teacher's Association, Inc., and names from <i>Agriculture Teacher's Directory</i> . 3% completed associate degree, 53% bachelor's degree, 36% master's degree, 7% other. 59% were employed by high schools, 14% by vocational/technical institutions, 8% by junior or community colleges, 4% by colleges or universities. 76% spent minimum of 40% of time in classroom instruction. Other activities included lesson preparation, assignment evaluation, administrative functions, and outdoor instruction.	25-1041.00	Teach courses in the agricultural sciences. Includes teachers of agronomy, dairy sciences, fisheries management, horticultural sciences, poultry sciences, range management, and agricultural soil conservation.	Biological Technician Dietitian or Nutritionist Elementary School Teacher, except Special Education Farmer or Rancher First-Line Supervisors/Managers of Agricultural Crop or Horticultural Workers Health Specialties Teacher, Postsecondary Medical or Clinical Laboratory Technologist Nursing Instructor or Teacher, Postsecondary Veterinarian
Vocational Agriculture Teacher (Male)	239	1982	37.6	11.7	See women's sample above. 38% completed bachelor's degree, 49% master's degree. 69% were employed by high schools, 10% by colleges or universities, 9% by vocational institutions, 7% by junior or community colleges. 75% spent minimum of 40% of time in classroom instruction. Other activities included lesson preparation, assignment evaluation, administrative functions, and outdoor instruction.			
Wholesale Sales Representative (Female)	58	2009	39.7	10.9	Sample collected from CPP commercial and research databases. 50% completed bachelor's degree, 5% master's degree.	41-4012.00	Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.	Demonstrator or Product Promoter Public Relations Specialist Retail Salesperson
Wholesale Sales Representative (Male)	105	2009	40.5	14.4	See women's sample above. 54% completed bachelor's degree, 14% master's degree.			Sales Representative, Wholesale or Manufacturing, Technical or Scientific Products Wholesale or Retail Buyers, except Farm Products

References

- Donnay, D. A. C., Morris, M. L., Schaubhut, N. A., & Thompson, R. C. (2005). *Strong Interest Inventory® Manual*. Mountain View, CA: CPP, Inc.
- Murphy, K. R., & Davidshofer, C. O. (2005). *Psychological testing: Principles and applications* (6th ed.). Upper Saddle River, NJ: Prentice-Hall.



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