CPP innovation labs

Technical Brief for the SuperStrong™

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Strong Interest Inventory®

Background

The *Strong Interest Inventory® (Strong*) assessment is one of the most widely used career planning tools in the United States, helping individuals in educational settings, public institutions, and private organizations for nearly 80 years.

The *Strong* assessment helps individuals match their interests with different occupational, educational, and leisure pursuits. The *Strong* compares clients' assessment results with people who have similar interests and are successfully employed in different occupations. Using information provided by the *Strong*, clients can explore the world of work to make sound educational and career decisions.

The *Strong* consists of five main types of information, which are:

- General Occupational Themes
- Basic Interest Scales
- Occupational Scales
- Personal Style Scales
- Administrative Indexes

General Occupational Themes (GOTs)

The *Strong* can be thought of as a funnel starting from the general and narrowing to the specific. The funnel consists of three components, the General Occupational Themes, Basic Interest Scales, and Occupational Scales. Perhaps the most general information from the *Strong* is that of the General Occupational Themes. The General Occupational Themes were derived from John Holland's work, which classified the world of work into six basic categories of occupational interests (Holland, 1959). These are Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. Thorough descriptions of the GOTs are available in the *Strong Interest Inventory Manual* (Donnay, Morris, Schaubhut, & Thompson, 2005). Briefly, individuals with high scores on Realistic enjoy building, repairing things, and working outdoors. Individuals with an interest in the Investigative theme enjoy research and analyzing. Those with an interest in the Artistic theme enjoy creating or pursuing art, drama, music and writing. Individuals with higher scores on Social like to work with people by helping, instructing, and caring for others. Higher Enterprising scores relate to those interested in selling, managing, and persuading others. Finally, those with an interest in the Conventional theme enjoy accounting, organizing, and processing data.

Basic Interest Scales (BISs)

The second part of the *Strong* funnel is the Basic Interest Scales. BISs are often described as subthemes of the GOTs. For example, the BISs for Realistic are Mechanics and Construction, Computer Hardware and Electronics, Military, Protective Services, Nature and Agriculture, and Athletics. In total, 30 different Basic Interest Scales measure areas such as Culinary Arts to Finance and Investing. High scores on BISs indicate areas of interest and activities individuals may find motivating or rewarding. A full description of the Basic Interest Scales is available in the *Strong Interest Inventory Manual* (Donnay, et al., 2005).

Occupational Scales (OSs)

The final portion of the *Strong* funnel is the Occupational Scales. The Occupational Scales compare the results of an individual to the results of individuals in 130 different occupations. *The Strong Interest Inventory Manual* (Donnay, et al., 2005) provides an extensive list of the occupations provided by the Strong.

Personal Style Scales (PSSs)

Personal Style Scales are scales outside of the funnel above. Rather, the PSSs help identify different characteristics an individual may enjoy in a work environment. Five scales make up the Personal Style Scales. These are Work Style, Learning Environment, Leadership Style, Risk Taking, and Team Orientation. Each scale provides descriptions at the polar ends of the scale. For example, the Work Style Scale ranges from people who favor working with people to those who enjoy working with ideas, data or things. The scores of each of these style scales provide a description of an individual's preference for various characteristics important to the world of work. See the *Strong Interest Inventory Manual* (Donnay, et al., 2005) for a full description of the PSSs.

Administrative Indexes

The final piece of information provided by the *Strong Interest Inventory* is the administrative indexes. The administrative indexes were created to aide in the interpretation of results. Three indexes were created and these included item response percentages, total response index, and typicality index. A full description of these indexes is available in the *Strong Interest Inventory Manual* (Donnay, et al., 2005).

Evolution of the SuperStrong™

The *SuperStrong* is a shortened assessment of the *Strong Interest Inventory* driven by the requests of our customer base. The assessment includes 60 items and takes approximately 11 minutes to complete. Originally designed to focus on the Holland codes as measured by the Strong Interest Inventory's General Occupational Themes, the *SuperStrong* assessment was expanded to include Basic Interest Scales, Occupational Scales, and Personal Style Scales. The remainder of this document outlines the assessment's evolution and statistical merits.

Phase 1: Initial Assessment Construction

Research for Phase I occurred around 2011. *SuperStrong* was originally intended to measure only the General Occupational Themes. Researchers began by selecting items highly related to the General Occupational Themes and iterated until a solid assessment was identified (Herk & Thompson, 2012).

Sample Description

Item selection and analyses for Phase I were conducted using the General Representative Sample (GRS) outlined in the *Strong Interest Inventory* Manual (Donnay, et al., 2005). A full description of the sample can be found in the manual. Briefly, the sample was comprised of 2,250 individuals (1,125 women; 1,125 men). The average age was 36.

Item Selection

Researchers selected items that maximized the prediction of the General Occupational Themes. Ten items were selected for each scale, resulting in a sixty-item assessment. The assessment included two sections. The first section included forty-one items and focused on occupation titles. The second section included nineteen items focused on activities.

Scoring

Scoring for the shortened assessment mirrored the full *Strong Interest Inventory*. Items for each scale were summed together to calculate raw scores. Raw scores were then standardized to T-scores for presentation to users. Consistent with the *Strong Interest Inventory,* there was no gendered scoring for the General Occupational Scales.

Psychometrics

During construction of the *SuperStrong*, care was taken to create shortened assessment scales that had high correlations with the full-length scales. To help outline the similarities between the *Strong* and the shortened *Strong,* we have outlined several common psychometrics. Table 1 presents the correlation between the shortened scale and the full-length scale, test-retest reliability of the full and shortened *Strong*, as well as a measure of internal consistency.

Table 1 Comparison of 2004 GOTs and Revised GOTs: Correlations, Internal Consistencies, and Test-Retest Reliabilities

		2004 GOT			Revised GOT		
Theme	Correlation	Number of items	Cronbach's Alpha	Test-Retest	Number of items	Cronbach's Alpha	Test-Retest
Realistic	.96	24	.92	.89	10	.85	.88
Investigative	.92	21	.92	.88	10	.88	.84
Artistic	.95	31	.95	.84	10	.88	.75
Social	.96	29	.92	.85	10	.84	.79
Enterprising	.96	24	.91	.85	10	.83	.83
Conventional	.96	24	.90	.86	10	.82	.78

Note. Cronbach's alphas are based on the General Representative Sample of 2,250 women and men. Test-retest reliabilities for the 2004 GOTs are based on *N* = 89 women and men. Test-retest reliabilities for the revised GOTs are based on *N* = 174 women and men.

As seen in Table 1, the expected correlations of the shortened scales with the original Strong were quite high, with an average correlation of .95. The internal consistency of the full S*trong* was slightly higher, with an average Cronbach's alpha of .92 while the shortened assessment had an average alpha of .85.

Test-retest reliability for the full length scales and the shortened scales was also very similar, with average correlations of .86 and .81, respectively. Taken as a whole, these results illustrate that the shortened assessment preforms very well in comparison to the full assessment.

Table 2 Intercorrelations between the Shortened GOTs for Men and Women

Theme	Realistic	Investigative	Artistic	Social	Enterprising	Conventional
Realistic	-	.57	.44	.14	.20	.36
Investigative	.54	-	.43	.19	.12	.26
Artistic	.27	.41	-	.28	.32	.05
Social	.20	.29	.39	-	.47	.30
Enterprising	.25	.11	.27	.48	-	.38
Conventional	.38	.33	.14	.37	.54	-

Note. For correlations above the diagonal n = 1,125 women; below the diagonal n = 1,125 men.

As seen in Table 2, results for the intercorrelations of the GOTs are similar to those reported in Table 3.5 in the *Strong Interest Inventory Manual*, showing a high degree of similarity. The average discrepancy for the scores of women was -.03 with similarly small differences in men -.01.

Table 3 outlines the correlations between the shortened General Occupational Themes and the Basic Interest Scales. Again, these results closely mirror the relationships outlined within the *Strong interest Inventory* (Donnay, et al., 2005).

Table 3 Correlations Between the Revised GOTs and the BISs for Women and Men in the GRS

Basic Interest Scale	Realistic			Investigative			Artistic			Social			Enterprising			Conventional		
	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined
Mechanics & Construction	.84	.84	.87	.55	.54	.53	.45	.23	.27	.09	.13	-.01	.22	.23	.21	.35	.34	.32
Computer Hardware & Electronics	.67	.69	.73	.42	.47	.45	.16	.07	.09	.11	.10	.02	.18	.10	.13	.59	.43	.49
Military	.51	.51	.60	.39	.33	.37	.17	.09	.09	.16	.19	.07	.17	.25	.20	.27	.24	.25
Protective Services	.57	.60	.62	.51	.40	.47	.30	.19	.22	.24	.32	.20	.24	.31	.27	.22	.27	.25
Nature & Agriculture	.65	.65	.64	.47	.46	.47	.48	.37	.42	.15	.29	.17	.11	.23	.16	.10	.19	.15
Athletics	.49	.31	.47	.27	.07	.19	.26	.15	.18	.29	.32	.22	.29	.33	.30	.19	.19	.19
Science	.58	.52	.57	.89	.90	.90	.40	.35	.36	.12	.19	.10	.10	.07	.09	.26	.27	.27
Research	.47	.40	.45	.72	.73	.73	.39	.32	.34	.25	.30	.22	.31	.28	.30	.43	.52	.47
Medical Science	.46	.51	.44	.79	.79	.79	.31	.36	.33	.30	.43	.34	.20	.26	.23	.26	.40	.32
Mathematics	.41	.34	.43	.42	.47	.45	.12	.10	.10	.07	.11	.04	.13	.09	.11	.49	.48	.48
Visual Arts & Design	.45	.32	.30	.41	.44	.41	.86	.85	.86	.19	.33	.27	.32	.26	.29	.07	.15	.11
Performing Arts	.29	.14	.10	.33	.31	.29	.77	.79	.78	.30	.39	.37	.34	.25	.29	.01	.09	.04
Writing & Mass	.25	.08	.11	.31	.32	.31	.71	.72	.72	.34	.41	.38	.36	.29	.32	.12	.21	.16
Culinary Arts	.15	.23	.09	.13	.18	.13	.40	.41	.41	.23	.29	.28	.33	.37	.35	.01	.13	.06
Counseling & Helping	.11	.15	.00	.24	.32	.24	.25	.38	.32	.84	.87	.87	.39	.42	.39	.19	.30	.23
Teaching & Education	.18	.22	.14	.20	.30	.24	.34	.41	.38	.78	.82	.80	.34	.38	.36	.19	.29	.23
Human Resources & Training	.07	.17	.07	.10	.15	.12	.17	.14	.16	.67	.67	.66	.61	.64	.62	.33	.42	.37
Social Sciences	.35	.22	.23	.44	.45	.44	.50	.49	.49	.50	.59	.54	.40	.44	.42	.25	.38	.31
Religion & Spirituality	.11	.10	.08	.12	.19	.15	.29	.28	.28	.52	.52	.51	.21	.22	.22	.13	.19	.16
Healthcare Services	.38	.49	.32	.49	.52	.48	.17	.31	.24	.39	.57	.48	.17	.31	.24	.26	.36	.30
Marketing & Advertising	.14	.16	.08	.08	.07	.07	.35	.29	.33	.38	.41	.40	.86	.87	.86	.30	.46	.37
Sales	.24	.25	.27	.14	.09	.13	.21	.20	.19	.40	.39	.35	.81	.86	.83	.46	.55	.50
Management	.19	.29	.26	.18	.16	.18	.14	.08	.10	.50	.47	.44	.69	.75	.72	.48	.58	.53
Entrepreneurship	.17	.23	.23	.08	.11	.11	.24	.16	.19	.22	.18	.17	.59	.65	.62	.27	.39	.33
Politics & Public Speaking	.20	.13	.26	.21	.19	.22	.36	.30	.30	.33	.39	.28	.53	.55	.53	.17	.35	.26
Law	.25	.26	.25	.30	.30	.30	.24	.26	.25	.27	.38	.30	.41	.50	.45	.28	.45	.36

Basic Interest Scale	Realistic			Investigative			Artistic			Social			Enterprising			Conventional		
	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined
Office Management	.16	.28	.07	.07	.21	.10	-.05	.12	.03	.35	.45	.42	.34	.47	.38	.79	.77	.75
Taxes & Accounting	.33	.30	.33	.28	.32	.31	-.04	.00	-.03	.11	.18	.11	.19	.30	.24	.78	.80	.78
Programming &	.51	.46	.51	.35	.45	.40	.20	.20	.19	.14	.15	.09	.23	.16	.20	.64	.53	.59
Finance & Investing	.34	.25	.37	.28	.21	.26	.18	.07	.11	.16	.18	.10	.51	.59	.54	.66	.73	.68

Note. For correlations above the diagonal *n* = 1,125 women; below the diagonal *n* = 1,125 men.

Table 4 through

Table 9 present the correlations between Occupational Scales and the General Occupational Themes. Results in each of these tables are consistent with previous research. For example, Engineering Technician is the highest OS for women on the Realistic scale and Firefighter is the highest for men. These results are congruent with those reported in the *Strong Interest Inventory Manual* (Donnay, et al., 2005). Taken as a whole, these results indicate that the relationships we would expect between the GOTs and Occupational Scales are consistent using the shortened *Strong*.

Table 4 Correlations Between Revised Realistic Theme and OSs for Women and Men in the GRS

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Engineering Technician	.84	Firefighter	.72
Firefighter	.75	Engineer	.71
Electrician	.73	Network Administrator	.71
Network Administrator	.72	Computer & IS Manager	.71
Technical Support Specialist	.71	Software Developer	.67
Engineer	.71	Technical Support Specialist	.66
Computer Programmer	.69	Engineering Technician	.65
Chiropractor	.69	Computer Systems Analyst	.65
Computer Scientist	.67	Medical Technologist	.65
Software Developer	.66	Respiratory Therapist	.63
Paralegal	-.22	Librarian	-.27
Speech Pathologist	-.23	Broadcast Journalist	-.28
Farmer/Rancher	-.24	Translator	-.30
Business Education Teacher	-.24	Musician	-.30
Mental Health Counselor	-.26	Artist	-.30
Florist	-.28	Mental Health Counselor	-.31
Production Worker	-.29	Graphic Designer	-.32
Financial Analyst	-.31	Buyer	-.33
Advertising Account Manager	-.32	Advertising Account Manager	-.40
Buyer	-.54	Interior Designer	-.50

Note. Ten highest correlations are shaded.

Table 5 Correlations Between Revised Investigative Theme and OSs for Women and Men in the GRS

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Chiropractor	.84	Science Teacher	.81
Science Teacher	.81	Respiratory Therapist	.81
Dentist	.80	Medical Technologist	.80
Registered Nurse	.79	Dentist	.77
Optometrist	.77	Engineer	.75
Veterinarian	.74	Psychologist	.71
Engineer	.73	Software Developer	.71
Pharmacist	.72	Pharmacist	.71
Engineering Technician	.72	Veterinarian	.70
Geographer	.70	Optometrist	.70
Community Service Director	-.32	Life Insurance Agent	-.23
Financial Analyst	-.34	Advertising Account Manager	-.25
Cosmetologist	-.35	Landscape Grounds Manager	-.27
Production Worker	-.41	Law Enforcement Officer	-.28
Paralegal	-.42	Business Education Teacher	-.36
Business Education Teacher	-.44	Farmer/Rancher	-.36
Florist	-.44	Interior Designer	-.38
Advertising Account Manager	-.45	Restaurant Manager	-.46
Farmer/Rancher	-.50	Buyer	-.51
Buyer	-.69	Florist	-.59

Note. Ten highest correlations are shaded.

Table 6 Correlations Between Revised Artistic Theme and OSs for Women and Men in the GRS

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Editor	.85	Arts/Entertainment Manager	.87
Technical Writer	.83	Editor	.84
ESL Instructor	.81	Technical Writer	.74
Arts/Entertainment Manager	.81	English Teacher	.74
Graphic Designer	.79	Reporter	.71
English Teacher	.72	Urban & Regional Planner	.70
Urban & Regional Planner	.69	Art Teacher	.68
Musician	.66	Medical Illustrator	.66
Art Teacher	.66	ESL Instructor	.64
Translator	.64	Bartender	.61
Buyer	-.23	Optician	-.34
Radiologic Technologist	-.26	Athletic Trainer	-.38
Emergency Medical Technician	-.27	Radiologic Technologist	-.38
Food Service Manager	-.29	Electrician	-.40
Medical Technician	-.34	Law Enforcement Officer	-.47
Health Information Specialist	-.38	Vocational Agriculture Teacher	-.49
Business Education Teacher	-.41	Automobile Mechanic	-.54
Farmer/Rancher	-.63	Military Enlisted	-.55
Financial Analyst	-.67	Emergency Medical Technician	-.57

Production Worker	-.81	Farmer/Rancher	-.78

Note. Ten highest correlations are shaded.

Table 7 Correlations Between Revised Social Theme and OSs for Women and Men in the GRS

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Elementary School Teacher	.85	Elementary School Teacher	.87
Social Worker	.80	Community Service Director	.84
Secondary School Teacher	.80	Rehabilitation Counselor	.84
Rehabilitation Counselor	.79	Middle School Teacher	.83
Special Education Teacher	.79	Secondary School Teacher	.82
School Counselor	.77	Instructional Coordinator	.80
Middle School Teacher	.77	Religious/Spiritual Leader	.80
Religious/Spiritual Leader	.73	Special Education Teacher	.79
Career Counselor	.71	Career Counselor	.77
University Administrator	.65	School Counselor	.77
Forester	-.23	Mathematician	-.24
Physician	-.23	Carpenter	-.25
Mathematician	-.24	Forester	-.25
Chemist	-.24	Optician	-.28
Computer & IS Manager	-.28	Artist	-.28
Geologist	-.31	Electrician	-.29
Computer Systems Analyst	-.32	Biologist	-.30
Medical Illustrator	-.38	Automobile Mechanic	-.37
R&D Manager	-.41	Farmer/Rancher	-.39
Artist	-.46	Geologist	-.46

Note. Ten highest correlations are shaded.

Table 8 Correlations Between Revised Enterprising Theme and OSs for Women and Men in the GRS

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Realtor	.89	Wholesale Sales Representative	.91
Wholesale Sales Representative	.88	Realtor	.88
Technical Sales Representative	.84	Securities Sales Agent	.88
Securities Sales Agent	.83	Technical Sales Representative	.88
Sales Manager	.83	Sales Manager	.85
Purchasing Agent	.83	Loan Officer/Counselor	.84
Restaurant Manager	.80	Operations Manager	.84
Personal Financial Advisor	.77	Purchasing Agent	.83
Marketing Manager	.76	Top Executive, Business/Finance	.82
Life Insurance Agent	.74	Marketing Manager	.81
Carpenter	-.31	Graphic Designer	-.32
Medical Technician	-.32	Chemist	-.32
Chemist	-.35	Physicist	-.32
Medical Illustrator	-.36	Forester	-.33
Mathematician	-.42	Geographer	-.35
Geologist	-.42	Physician	-.35
Forester	-.42	Artist	-.57
Biologist	-.43	Mathematician	-.67
Artist	-.51	Geologist	-.67
Physician	-.55	Biologist	-.78

Note. Ten highest correlations are shaded.

Table 9 Correlations Between Revised Conventional Theme and OSs for Women and Men in the GRS

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Accountant	.81	Accountant	.80
Financial Manager	.77	Auditor	.79
Auditor	.76	Financial Manager	.78
Credit Manager	.76	Business/Finance Supervisor	.77
Business/Finance Supervisor	.69	Credit Manager	.71
Administrative Assistant	.68	Financial Analyst	.71
Technical Support Specialist	.66	Management Analyst	.65
Customer Service Representative	.63	Computer/Mathematics Manager	.63
Software Developer	.62	Health Information Specialist	.62
Computer/Mathematics Manager	.60	Operations Manager	.62
Chef	-.22	Geologist	-.21
Broadcast Journalist	-.22	Social Worker	-.23
Art Teacher	-.24	Advertising Account Manager	-.23
Speech Pathologist	-.24	Mental Health Counselor	-.25
Musician	-.35	Photographer	-.30
Advertising Account Manager	-.42	Medical Illustrator	-.32
Medical Illustrator	-.43	Musician	-.36
Mental Health Counselor	-.44	Biologist	-.41
Photographer	-.50	Graphic Designer	-.54
Artist	-.70	Artist	-.62

Note. Ten highest correlations are shaded.

Researchers also conducted an exploratory factor analysis, which we will briefly cover. As shown in Table 10, most items showed a clear loading for a single scale. However, a few items had strong cross loadings. Please note that these cross loadings are only an issue if traditional scoring is used where a single item is tied to a single GOT.

Table 10 Factor Analysis

Item	Component					
	1	2	3	4	5	6
Realistic Item 1	.34	.09	-.10	-.03	.41	**.53**
Realistic Item 2	.21	.04	.01	.04	.27	**.69**
Realistic Item 3	.41	.09	-.13	-.07	.29	**.48**
Realistic Item 4	.13	.08	.07	.17	.01	**.70**
Realistic Item 5	.13	.03	-.02	-.06	.14	**.72**
Realistic Item 6	.24	.01	.21	.26	-.12	**.52**
Realistic Item 7	.31	.19	.01	.10	-.08	**.38**
Realistic Item 8	.19	.14	.20	.24	-.11	**.56**
Realistic Item 9	.39	.18	-.15	-.01	.46	**.13**
Realistic Item 10	.05	.36	.20	-.09	-.15	**.20**
Investigative Item 1	**.80**	.06	.08	.14	.04	.15
Investigative Item 2	**.70**	.01	.09	.25	.17	.18
Investigative Item 3	**.67**	.02	.03	.13	.15	.24
Investigative Item 4	**.66**	-.02	.14	.22	-.03	.18
Investigative Item 5	**.76**	.11	.06	.13	.08	.07
Investigative Item 6	**.73**	.09	.27	.14	.00	.05
Investigative Item 7	**.52**	-.02	.02	.35	.05	.17
Investigative Item 8	**.73**	-.01	.19	.05	.09	.16
Investigative Item 9	**.55**	.04	.10	.09	.35	.31
Investigative Item 10	**.35**	.16	.31	.31	.03	-.16
Artistic Item 1	.22	.03	.13	**.74**	.00	.19
Artistic Item 2	.09	-.05	.06	**.77**	-.04	.06
Artistic Item 3	.10	.00	.23	**.73**	.04	-.07
Artistic Item 4	.11	.04	.10	**.73**	.10	.15
Artistic Item 5	.14	.05	.20	**.72**	.00	-.08
Artistic Item 6	.11	.05	.11	**.66**	.00	.07
Artistic Item 7	.10	.20	.28	**.57**	.08	-.09
Artistic Item 8	.15	.14	.11	**.63**	-.01	.21
Artistic Item 9	.10	.13	.26	**.51**	.08	.08
Artistic Item 10	.07	.15	.14	**.35**	.03	.29
Social Item 1	.13	.15	**.72**	.10	.02	-.04
Social Item 2	.11	.13	**.68**	.12	-.04	.09
Social Item 3	.05	.07	**.66**	.20	.09	.14
Social Item 4	.02	.07	**.68**	.17	.24	.05
Social Item 5	.20	.11	**.68**	.16	.05	-.02
Social Item 6	.02	.19	**.58**	.13	.27	.15
Social Item 7	.11	.10	**.55**	.21	.03	-.05
Social Item 8	-.07	.49	**.44**	.01	.29	.11
Social Item 9	.04	.26	**.59**	.22	.10	.03
Social Item 10	.16	.15	**.40**	.21	.22	.13
Enterprising 1	-.07	**.71**	.15	.01	.22	.09
Enterprising 2	-.06	**.55**	.14	.12	.20	.20
Enterprising 3	-.01	**.53**	.45	.22	.09	-.03

Item	Component					
	1	2	3	4	5	6
Enterprising 4	.07	**.51**	.44	.07	-.07	-.05
Enterprising 5	-.08	**.60**	.07	.24	-.01	-.04
Enterprising 6	.07	**.62**	.20	-.01	-.02	.06
Enterprising 7	.12	**.62**	-.01	.06	-.02	.06
Enterprising 8	-.08	**.51**	.25	.10	.27	.15
Enterprising 9	-.04	**.52**	.27	.15	.20	.20
Enterprising 10	.01	**.54**	.15	.10	.21	.21
Conventional 1	.19	.29	.08	-.02	**.61**	-.01
Conventional 2	.35	.19	-.10	-.02	**.59**	.01
Conventional 3	.25	.28	.11	-.07	**.54**	-.07
Conventional 4	.24	.56	.02	.04	**.33**	-.08
Conventional 5	.29	.64	.03	-.04	**.28**	-.10
Conventional 6	-.03	.50	.25	-.02	**.46**	.05
Conventional 7	.30	.63	-.08	.01	**.16**	-.06
Conventional 8	-.07	.20	.20	-.02	**.60**	.13
Conventional 9	.00	.04	.33	.15	**.61**	.13
Conventional 10	.04	.05	.21	.19	**.65**	.07

Note. For correlations above the diagonal n = 1,125 women; below the diagonal n = 1,125 men. Bolded items indicate loading on factors.

Phase 2: Alternative Scoring Techniques

In late 2014 and early 2015, we began examining alternative scoring techniques to maximize user output. We were interested in increasing value to our users by providing Basic Interest, Occupation, and Personal Style Scale results. To accomplish this objective, we leveraged large archival databases to generate predictive scoring algorithms. It is important to note that the items outlined in Phase 1 were not changed in Phase 2, only the scoring. The remainder of this section provides information outlining samples used for algorithm creation and results.

Samples

We used two samples for analyses. The first sample included 537,990 individuals from a large, commercial database who had completed the *Strong* between July 27, 2007 and March 20, 2015. Almost all individuals in the sample (99.6%) reported U.S. as their country of origin and 97.4% of individuals reported that they spoke English fluently. The sample was 39.1% male, 60.5% female, and .4% of individuals did not provide a response. The mean age was 24 with a standard deviation of 11 years.

As shown in Table 11, most individuals within the sample were enrolled as full-time students, working full-time, or working part-time. The sample was skewed towards those with some college or a high school diploma (see

Table 12). As shown in

Table 13 the sample included 37.2% non-white and 62.8% white participants. This sample is slightly more diverse than data provided by the United States Census Bureau (2014) which shows 77.4% of the population being white .

Table 11 Present Employment Status

	Frequency	Percent
Enrolled as a full-time student	287,458	53.4
Working full-time	93,492	17.4
Working part-time	74,133	13.8
None of the above	28,813	5.4
Not working for income	28,471	5.3
Currently seeking employment	17,417	3.2
Retired	3,130	0.6
No Response	5,076	0.9

	537,990	100

Table 12 Education Level

	Frequency	Percent
Some college - no degree	188,963	35.1
High school diploma	173,915	32.3
Bachelor's degree	76,746	14.3
Associate degree	28,907	5.4
Some high school	26,113	4.9
Master's degree	25,311	4.7
Trade or technical training	6,930	1.3
Doctorate – e.g., PhD	3,828	0.7
Professional degree – e.g., MD	3,246	0.6
No Response	4,031	0.7
	537,990	100

Table 13 Ethnicity

	Frequency	Percent
Caucasian	337,842	62.8
Latino/Hispanic	56,562	10.5
African American	35,796	6.7
Multiple Ethnicities	32,389	6
Asian	26,958	5
American Indian	21,485	4
Other	7,635	1.4
Mideast	4,017	0.7
Indian	3,361	0.6
Pacific	2,021	0.4
No Response	9,924	1.8
	537,990	100

We used a second sample to establish test-retest values of the data. Test-retest reliabilities for the revised GOTs are based on a sample of 168 (women N=106; men N=62). This is the same sample used for the test-retest reliability statistics in the *Strong Interest Inventory* manual minus a handful of cases that had too many missing items for the SuperStrong. Please see the Missing Data section below for an in-depth description of how missing data was handled.

Missing Data

The *Strong Interest Inventory* allows 15 items (5%) to be omitted from the 291-item assessment. Implementation of a similar 5% rule would allow for 3 total missing items. However, given the regression nature of the algorithms and the complexity of replacement values, we opted for the simplicity of no missing items. Thus, the *SuperStrong* in its current form requires users to provide responses to all 60 items to obtain scores. Analyses evaluating the *SuperStrong* in relation to the *Strong* only include cases where all items were available. Future versions of the *SuperStrong* may re-evaluate the necessity to respond to all items.

Scoring

To maximize prediction of Basic Interest Scales, Occupational Scales, and Personal Style Scales, we tried several techniques. First, we scored the General Occupational Themes on the SuperStrong as outlined in Phase 1. To do this, we summed items to create a raw score, which was then converted to a standard score common to men and women. We then input the six General Occupational Themes into a linear multiple regression model. We used this approach to predict Basic Interest Scales and General Occupational Themes, as measured with the original, 291-item Strong. Results from this approach were quite encouraging. In general, each theme was predictive in the regression, although a couple of instances did not follow this pattern. The average multiple r for Basic Interest Scales was .759 and .792 for Occupational Scales. These high results were impressive, given that 79% of the original Strong items had been removed from the SuperStrong assessment. It's important to note that we used the standardized General Occupational Theme scores, not the gendered interpretative ranges.

To increase prediction and maximize our data, we input all sixty items into the regression equations. Although parsimony would suggest we eliminate non-significant predictors, we maintained all items to maximize prediction. Use of all sixty items also had the added benefit of simplifying the scoring engine. Unlike Phase 1, we used the multiple regression approach for all scales, including the General Occupational Themes. Our prediction of the General Occupational Themes was high, with an average multiple r of .94. Our prediction jumped to a multiple r of .88 for Basic Interest and Occupational Scales and .83 for Personal Style Scales. The remainder of this report outlines common statistical properties between the *Strong Interest Inventory* and the *SuperStrong* using this approach. Please note that all reported values are based on using the predicted T-Scores.

Psychometrics

General Occupational Themes

As seen in

Table 14, the average relationship between General Occupational Theme Scores measured by the Strong and the *SuperStrong* was .97, indicating a very high level of agreement between scores of the *instruments.*

Table 14 Correlations between Strong and SuperStrong GOTs

Theme	r
Realistic	.97
Investigative	.96
Artistic	.97
Social	.97
Enterprising	.97
Conventional	.98

Note. Average *N* = 438,946. All values significant at p < .001.

Table 15 provides the intercorrelations between the *SuperStrong* GOTs for men and women. A review of these in comparison to the *Strong Interest Inventory* showed an average difference of .08, with the *SuperStrong* having slightly higher correlations. Again, these results indicate a high degree of congruence with the *Strong Interest Inventory*.

Table 15 Intercorrelations between the SuperStrong GOTs for Men and Women

Theme	Realistic	Investigative	Artistic	Social	Enterprising	Conventional
Realistic	-	.61	.48	.34	.36	.50
Investigative	.57	-	.39	.31	.17	.40
Artistic	.35	.43	-	.47	.39	.20
Social	.39	.42	.59	-	.48	.35
Enterprising	.39	.22	.34	.52	-	.57
Conventional	.49	.45	.22	.42	.64	-

Note. For correlations above the diagonal *n* = 262,805 women; below the diagonal *n* = 172,982 men.

Table 16 presents the correlation between the *SuperStrong* GOTs and BISs for women and men. Minimal differences are seen between relationships seen on the *Strong* and the *SuperStrong*. On average, the algorithm for women and men had slightly higher scores than the average (-.005, -.029 respectively). Taken as a whole, these results are very consistent with one another and with expected results.

Table 16 Correlations Between the SuperStrong GOTs and the BISs for Women and Men

	Realistic			Investigative			Artistic			Social			Enterprising			Conventional		
Basic Interest Scale	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined
Mechanics & Construction	.91	.92	.94	.65	.61	.62	.48	.34	.33	.26	.31	.13	.35	.35	.36	.54	.51	.55
Computer Hardware & Electronics	.70	.67	.75	.54	.53	.55	.26	.19	.18	.20	.21	.08	.30	.26	.30	.71	.66	.69
Military	.93	.94	.95	.62	.57	.60	.31	.23	.21	.38	.41	.23	.38	.45	.42	.56	.54	.57
Protective Services	.86	.89	.88	.64	.61	.64	.43	.39	.37	.48	.52	.39	.39	.46	.44	.47	.48	.50
Nature & Agriculture	.82	.78	.79	.56	.51	.55	.55	.49	.50	.39	.48	.36	.24	.29	.28	.27	.24	.28
Athletics	.56	.54	.59	.21	.16	.23	.22	.15	.17	.42	.43	.33	.39	.47	.44	.24	.31	.31
Science	.60	.55	.59	.96	.96	.96	.37	.39	.35	.23	.33	.21	.11	.14	.14	.33	.36	.37
Research	.59	.53	.58	.85	.87	.86	.48	.48	.46	.39	.50	.37	.43	.47	.46	.59	.64	.62
Medical Science	.53	.55	.49	.86	.87	.86	.28	.38	.31	.39	.50	.42	.19	.30	.24	.34	.44	.38
Mathematics	.58	.56	.62	.73	.74	.74	.16	.18	.14	.25	.34	.20	.30	.40	.36	.77	.80	.79
Visual Arts & Design	.54	.47	.44	.42	.47	.43	.92	.92	.91	.37	.49	.40	.37	.34	.36	.24	.27	.24
Performing Arts	.42	.29	.27	.35	.38	.34	.89	.91	.90	.47	.56	.51	.37	.32	.33	.17	.18	.15
Writing & Mass Communication	.34	.21	.24	.32	.36	.32	.83	.84	.83	.44	.57	.48	.42	.39	.40	.25	.28	.25
Culinary Arts	.35	.37	.26	.27	.33	.27	.59	.60	.60	.51	.55	.54	.50	.50	.48	.23	.27	.21
Counseling & Helping	.26	.30	.13	.31	.40	.29	.44	.56	.49	.88	.92	.90	.36	.42	.34	.21	.30	.20
Teaching & Education	.28	.34	.18	.24	.36	.25	.44	.58	.50	.90	.92	.91	.32	.38	.32	.23	.30	.21
Human Resources & Training	.32	.36	.27	.26	.33	.27	.39	.43	.41	.78	.82	.79	.75	.77	.74	.53	.57	.52
Social Sciences	.52	.45	.43	.59	.64	.60	.71	.73	.72	.71	.80	.73	.56	.58	.56	.43	.50	.45
Religion & Spirituality	.29	.27	.22	.21	.25	.21	.42	.46	.44	.64	.68	.65	.27	.29	.27	.22	.23	.21
Healthcare Services	.54	.61	.45	.66	.69	.64	.27	.38	.32	.59	.65	.61	.24	.33	.26	.37	.43	.36
Marketing & Advertising	.34	.38	.34	.17	.24	.21	.44	.41	.42	.44	.52	.44	.95	.96	.96	.54	.63	.57
Sales	.36	.41	.41	.15	.19	.19	.25	.22	.22	.42	.46	.38	.89	.92	.90	.62	.67	.65
Management	.40	.45	.42	.29	.33	.32	.26	.26	.25	.57	.60	.54	.82	.85	.84	.66	.69	.68
Entrepreneurship	.39	.42	.45	.23	.26	.27	.40	.33	.35	.34	.37	.29	.83	.85	.84	.53	.59	.57
Politics & Public Speaking	.43	.39	.45	.37	.42	.41	.54	.51	.50	.50	.60	.47	.73	.77	.75	.43	.52	.48
Law	.50	.47	.50	.50	.51	.51	.46	.44	.44	.55	.61	.52	.74	.79	.76	.61	.69	.65
Office Management	.34	.35	.27	.25	.33	.26	.19	.26	.22	.44	.52	.48	.56	.62	.57	.89	.89	.86

	Realistic			Investigative			Artistic			Social			Enterprising			Conventional		
Basic Interest Scale	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined	Women	Men	Com-bined
Taxes & Accounting	.40	.37	.43	.43	.43	.44	.02	.04	.01	.19	.27	.17	.38	.49	.44	.86	.87	.87
Programming & Information Systems	.62	.56	.64	.54	.57	.57	.40	.35	.34	.26	.31	.19	.42	.38	.42	.79	.77	.79
Finance & Investing	.42	.36	.47	.34	.31	.36	.17	.12	.12	.23	.26	.15	.70	.75	.72	.80	.78	.80

Table 17 through Table 22 present the top Occupational Scales for each General Occupational Theme. As seen in these tables, the resulting Occupational Scales are consistent with findings from the *Strong Interest Inventory*. For example, Engineering Technician is the first item on the list using the *Strong Interest Inventory* and second on the list using the *SuperStrong*. Men showed similar patterns, with Firefighter being the top on both the *Strong* and *SuperStrong* findings. These results are very encouraging and show a high degree of overlap between the *Strong* and *SuperStrong*.

Table 17 Correlations Between Revised Realistic Theme and OSs for Women and Men in the GRS

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Fire fighter	.87	Fire fighter	.90
Engineering Technician	.83	Engineering Technician	.86
Engineer	.80	Military Officer	.81
Network Administrator	.77	Engineer	.80
Technical Support Specialist	.76	Technical Support Specialist	.74
Military Officer	.76	Network Administrator	.74
Software Developer	.75	Chiropractor	.72
Computer Programmer	.73	Software Developer	.71
Chiropractor	.72	Computer Programmer	.71
Computer Mathematics Manager	.68	Electrician	.70
Musician	-.08	Translator	-.17
Interior Designer	-.11	Florist	-.17
Business Education Teacher	-.12	Librarian	-.19
Speech Pathologist	-.14	Broadcast Journalist	-.21
Mental Health Counselor	-.20	Interior Designer	-.22
Advertising Account Manager	-.23	Mental Health Counselor	-.22
Florist	-.23	Musician	-.26
Artist	-.29	Advertising Account Manager	-.37
Farmer Rancher	-.31	Buyer	-.37
Buyer	-.39	Artist	-.40

Note. Ten highest correlations are shaded.

Table 18 Correlations Between Revised Investigative Theme and OSs for Women and Men in the GRS

OS Correlations for Women	r	OS Correlations for Men	r
Science Teacher	.95	Science Teacher	.95
Optometrist	.92	Optometrist	.93
Dentist	.91	Dentist	.91
Medical Technologist	.89	Medical Technologist	.88
Engineer	.88	Pharmacist	.87
Pharmacist	.85	Engineer	.86
Chiropractor	.85	Registered Nurse	.84
Registered Nurse	.83	Respiratory Therapist	.83
Veterinarian	.83	Veterinarian	.82
Respiratory Therapist	.81	Chiropractor	.82
Restaurant Manager	-.30	Restaurant Manager	-.26
Life Insurance Agent	-.30	Artist	-.27
Cosmetologist	-.30	Cosmetologist	-.28
Paralegal	-.34	Paralegal	-.31
Interior Designer	-.35	Business Education Teacher	-.35
Business Education Teacher	-.41	Interior Designer	-.35
Farmer Rancher	-.46	Advertising Account Manager	-.48
Advertising Account Manager	-.48	Farmer Rancher	-.49
Florist	-.64	Florist	-.64
Buyer	-.66	Buyer	-.64

Note. Ten highest correlations are shaded.

Table 19 Correlations Between Revised Artistic Theme and OSs for Women and Men in the GRS

OS Correlations for Women	r	OS Correlations for Men	r
Arts Entertainment Manager	.95	Editor	.96
Editor	.95	Arts Entertainment Manager	.96
Technical Writer	.88	Technical Writer	.89
English Teacher	.88	English Teacher	.89
ESL Instructor	.87	ESL Instructor	.88
Urban Regional Planner	.84	Art Teacher	.84
Art Teacher	.83	Urban Regional Planner	.84
Reporter	.81	Reporter	.81
Graphic Designer	.78	Graphic Designer	.77
Instructional Coordinator	.74	Instructional Coordinator	.76
Mathematics Teacher	-.27	Vocational Agriculture Teacher	-.24
Vocational Agriculture Teacher	-.28	Law Enforcement Officer	-.29
Optician	-.32	Medical Technician	-.31
Medical Technician	-.35	Optician	-.38
Military Enlisted	-.48	Military Enlisted	-.46
Radiologic Technologist	-.48	Automobile Mechanic	-.47
Automobile Mechanic	-.48	Radiologic Technologist	-.47
Emergency Medical Technician	-.52	Emergency Medical Technician	-.48
Production Worker	-.71	Production Worker	-.66
Farmer Rancher	-.88	Farmer Rancher	-.88

Note. Ten highest correlations are shaded.

Table 20 Correlations Between Revised Social Theme and OSs for Women and Men in the GRS

OS Correlations for Women	r	OS Correlations for Men	r
Elementary School Teacher	.96	Elementary School Teacher	.96
Middle School Teacher	.94	Middle School Teacher	.94
Secondary School Teacher	.93	Secondary School Teacher	.94
Rehabilitation Counselor	.91	Rehabilitation Counselor	.94
Community Service Director	.90	Religious Spiritual Leader	.91
School Counselor	.90	School Counselor	.91
Special Education Teacher	.89	Community Service Director	.91
Religious Spiritual Leader	.88	Special Education Teacher	.89
Recreation Therapist	.86	Instructional Coordinator	.88
Career Counselor	.83	Recreation Therapist	.87
RD Manager	-.21	Electrician	-.19
Forester	-.21	Carpenter	-.20
Mathematician	-.22	Optician	-.22
Electrician	-.23	Production Worker	-.22
Carpenter	-.25	Landscape Grounds Manager	-.23
Landscape Grounds Manager	-.29	Radiologic Technologist	-.25
Automobile Mechanic	-.33	Automobile Mechanic	-.32
Geologist	-.36	Geologist	-.33
Farmer Rancher	-.38	Artist	-.42
Artist	-.43	Farmer Rancher	-.50

Note. Ten highest correlations are shaded.

Table 21 Correlations Between Revised Enterprising Theme and OSs for Women and Men in the GRS

OS Correlations for Women	r	OS Correlations for Men	r
Wholesale Sales Representative	.98	Wholesale Sales Representative	.98
Realtor	.98	Realtor	.98
Securities Sales Agent	.96	Securities Sales Agent	.97
Technical Sales Representative	.95	Technical Sales Representative	.96
Purchasing Agent	.95	Sales Manager	.96
Sales Manager	.95	Purchasing Agent	.96
Personal Financial Advisor	.92	Personal Financial Advisor	.93
Marketing Manager	.92	Top Executive Business Finance	.93
Top Executive Business Finance	.92	Operations Manager	.93
Operations Manager	.91	Marketing Manager	.92
Farmer Rancher	-.32	Carpenter	-.29
Chemist	-.32	Radiologic Technologist	-.32
Radiologic Technologist	-.35	Musician	-.37
Carpenter	-.37	Medical Illustrator	-.38
Forester	-.48	Forester	-.42
Physician	-.52	Physician	-.49
Geologist	-.59	Geologist	-.58
Mathematician	-.61	Mathematician	-.59
Artist	-.62	Biologist	-.67
Biologist	-.67	Artist	-.69

Note. Ten highest correlations are shaded.

Table 22 Correlations Between Revised Conventional Theme and OSs for Women and Men in the GRS

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Accountant	.91	Accountant	.91
Auditor	.88	Auditor	.88
Financial Manager	.87	Financial Manager	.87
Credit Manager	.84	Business Finance Supervisor	.83
Business Finance Supervisor	.83	Credit Manager	.83
Computer Mathematics Manager	.80	Computer Mathematics Manager	.82
Health Information Specialist	.80	Health Information Specialist	.82
Customer Service Representative	.77	Customer Service Representative	.78
Technical Support Specialist	.76	Management Analyst	.77
Administrative Assistant	.74	Administrative Assistant	.74
Art Teacher	-.16	Art Teacher	-.16
Graphic Designer	-.23	Speech Pathologist	-.22
Biologist	-.24	Graphic Designer	-.26
Speech Pathologist	-.26	Biologist	-.27
Advertising Account Manager	-.35	Advertising Account Manager	-.37
Medical Illustrator	-.39	Medical Illustrator	-.41
Musician	-.41	Musician	-.41
Photographer	-.43	Mental Health Counselor	-.41
Mental Health Counselor	-.44	Photographer	-.45
Artist	-.73	Artist	-.76

Note. Ten highest correlations are shaded.

As seen in

Table 23, the test-retest values for the *SuperStrong over periods ranging from 1 – 23 months* are also very good. The average test-retest for the overall sample, 1-7 months, and 8-23 months were all .82 indicating a high degree of agreement over time. The difference between the test-retest for the *SuperStrong* and the *Strong Interest Inventory* was .04 for the full sample, .04 for 1-7 months, and .03 for 8-23 months with the *Strong Interest Inventory* having slightly higher correlations. Taken as a whole, these results indicate a high degree of stability in SuperStrong GOT scores across time.

Table 23 Test-Retest Correlations, Mean, and Standard Deviation for the SuperStrong General Occupational Themes

Theme	Test-Retest Correlation	Test		Retest	
		Mean	SD	Mean	SD
Overall Sample (N = 168)					
Realistic	.87	49.49	9.01	50.58	9.23
Investigative	.86	51.95	9.38	52.35	9.00
Artistic	.78	53.24	9.08	53.88	8.96
Social	.81	51.19	9.10	51.87	9.11
Enterprising	.83	47.47	9.91	48.26	9.34
Conventional	.79	50.14	9.14	50.92	9.12
1-7 Months (N =87)					
Realistic	.85	48.73	8.86	49.94	9.18
Investigative	.83	50.48	9.49	51.22	9.47
Artistic	.80	52.20	9.15	52.90	9.28
Social	.81	51.44	9.60	51.54	9.20
Enterprising	.83	47.11	9.95	47.92	9.97
Conventional	.81	49.67	10.06	50.20	9.59
8-23 Months (N = 81)					
Realistic	.89	50.30	9.16	51.27	9.29
Investigative	.88	53.54	9.06	53.57	8.35
Artistic	.75	54.36	8.92	54.94	8.54
Social	.81	50.93	8.59	52.23	9.06
Enterprising	.83	47.85	9.91	48.63	8.65
Conventional	.77	50.65	8.07	51.68	8.58

Note. SD = Standard Deviation

Basic Interest Scales

Table 24 presents the correlation between the *Strong Interest Inventory* and the *SuperStrong BIS scores*. The average correlation was .87, showing a high degree of agreement with the *Strong Interest Inventory*.

Table 24 Correlation between Strong and SuperStrong Basic Interest Scales

Basic Interest Scale	r
Mechanics and Construction	.94
Computer Hardware and Electronics	.97
Military	.69
Protective Services	.77
Nature and Agriculture	.89
Athletics	.88
Science	.96
Research	.93
Medical Science	.91
Mathematics	.70
Visual Arts and Design	.94
Performing Arts	.90
Writing and Mass Communication	.91
Culinary Arts	.79
Counseling and Helping	.95
Teaching and Education	.93
Human Resources and Training	.91
Social Sciences	.79
Religion and Spirituality	.83
Healthcare Services	.81
Marketing and Advertising	.94
Sales	.96
Management	.91
Entrepreneurship	.89
Politics and Public Speaking	.76
Law	.65
Office Management	.94
Taxes and Accounting	.91
Programming and Information Systems	.92
Finance and Investing	.95

Note. Average N = 438,221. All values significant at p<.001.

As shown in Table 25, intercorrelations between the BISs on the *SuperStrong* are similar to those found by the *Strong Interest Inventory*. Relations between the BISs on the *SuperStrong* are .14 higher than those in the *Strong Interest Inventory*. These differences are likely due to the use of the same items with different weights rather than unique items for the Basic Interest Scales.

Table 25 Intercorrelations between Men and Women Algorithms

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Mechanics and Construction	-	.76	.81	.72	.67	.33	.64	.65	.50	.66	.58	.38	.35	.29	.19
2.	Computer Hardware and Electronics	.73	-	.66	.54	.37	.20	.51	.59	.42	.70	.34	.22	.23	.15	.14
3.	Military	.84	.61	-	.92	.70	.56	.58	.60	.62	.62	.33	.32	.25	.28	.33
4.	Protective Services	.76	.52	.93	-	.71	.56	.59	.54	.72	.49	.44	.43	.32	.42	.45
5.	Nature and Agriculture	.63	.27	.70	.73	-	.36	.54	.51	.45	.35	.59	.45	.40	.43	.34
6.	Athletics	.33	.15	.56	.57	.37	-	.18	.21	.31	.30	.20	.26	.17	.32	.28
7.	Science	.60	.51	.52	.56	.48	.11	-	.75	.79	.67	.41	.32	.27	.22	.22
8.	Research	.57	.56	.55	.53	.46	.20	.76	-	.62	.77	.46	.40	.54	.32	.38
9.	Medical Science	.53	.44	.62	.72	.47	.29	.80	.67	-	.56	.29	.29	.19	.30	.38
10.	Mathematics	.62	.66	.59	.49	.31	.30	.67	.80	.61	-	.22	.16	.14	.16	.15
11.	Visual Arts and Design	.49	.32	.30	.45	.54	.15	.44	.48	.40	.25	-	.75	.64	.53	.33
12.	Performing Arts	.25	.16	.21	.36	.39	.16	.33	.41	.36	.17	.76	-	.67	.53	.44
13.	Writing and Mass Communication	.19	.13	.16	.28	.35	.15	.29	.53	.29	.18	.65	.70	-	.40	.43
14.	Culinary Arts	.31	.16	.33	.45	.47	.31	.26	.37	.37	.23	.54	.53	.42	-	.43
15.	Counseling and Helping	.23	.16	.35	.47	.42	.31	.31	.47	.48	.25	.45	.54	.54	.49	-
16.	Teaching and Education	.27	.16	.32	.42	.45	.40	.29	.42	.38	.30	.47	.54	.55	.50	.75
17.	Human Resources and Training	.30	.26	.42	.46	.35	.41	.23	.56	.37	.40	.37	.41	.50	.51	.74
18.	Social Sciences	.41	.29	.46	.55	.54	.30	.53	.79	.58	.50	.64	.66	.76	.56	.82
19.	Religion and Spirituality	.21	.12	.31	.30	.39	.25	.19	.32	.27	.19	.36	.50	.43	.34	.71
20.	Healthcare Services	.54	.40	.65	.78	.56	.44	.62	.50	.89	.47	.40	.36	.27	.45	.57
21.	Marketing and Advertising	.35	.28	.41	.43	.29	.42	.16	.50	.30	.39	.42	.36	.44	.50	.43
22.	Sales	.37	.29	.47	.46	.26	.45	.13	.39	.29	.41	.24	.20	.26	.36	.33
23.	Management	.41	.33	.53	.54	.32	.45	.26	.52	.41	.50	.26	.24	.33	.44	.46
24.	Entrepreneurship	.38	.32	.44	.42	.31	.39	.19	.50	.28	.41	.35	.30	.34	.45	.31
25.	Politics and Public Speaking	.32	.21	.48	.49	.36	.43	.32	.67	.40	.46	.39	.48	.66	.47	.57
26.	Law	.42	.31	.59	.64	.37	.46	.41	.69	.57	.59	.36	.41	.57	.47	.57
27.	Office Management	.36	.47	.42	.42	.22	.27	.25	.52	.36	.58	.27	.23	.35	.30	.39
28.	Taxes and Accounting	.41	.48	.45	.34	.16	.28	.34	.58	.38	.87	.09	.04	.10	.16	.18
29.	Programming and Information Systems	.62	.91	.51	.45	.26	.14	.52	.68	.45	.69	.44	.29	.34	.24	.26
30.	Finance and Investing	.35	.33	.46	.36	.18	.37	.22	.55	.31	.67	.14	.11	.21	.26	.19

		16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1.	Mechanics and Construction	.21	.30	.50	.23	.44	.35	.36	.39	.39	.40	.48	.36	.47	.68	.46
2.	Computer Hardware and Electronics	.14	.28	.35	.17	.36	.30	.34	.37	.36	.29	.39	.51	.58	.91	.48
3.	Military	.27	.39	.51	.33	.61	.32	.40	.49	.38	.49	.61	.41	.47	.57	.49
4.	Protective Services	.36	.41	.56	.29	.76	.34	.40	.49	.36	.46	.65	.39	.34	.47	.37
5.	Nature and Agriculture	.35	.28	.55	.35	.49	.23	.21	.26	.30	.33	.34	.21	.18	.37	.21
6.	Athletics	.38	.35	.31	.25	.45	.35	.37	.38	.30	.39	.43	.20	.21	.18	.31
7.	Science	.18	.17	.50	.16	.60	.11	.11	.23	.17	.30	.41	.18	.35	.49	.27
8.	Research	.29	.51	.77	.29	.44	.44	.35	.48	.47	.64	.67	.44	.55	.69	.58
9.	Medical Science	.26	.26	.48	.21	.88	.17	.22	.33	.20	.28	.52	.24	.33	.38	.29
10.	Mathematics	.22	.33	.43	.17	.43	.28	.35	.44	.34	.38	.53	.52	.88	.69	.70
11.	Visual Arts and Design	.34	.32	.61	.31	.28	.45	.26	.24	.40	.40	.36	.20	.08	.46	.20
12.	Performing Arts	.43	.39	.64	.46	.30	.39	.24	.25	.36	.50	.44	.17	.02	.32	.17
13.	Writing and Mass Communication	.39	.46	.74	.37	.15	.47	.28	.32	.40	.69	.59	.28	.06	.41	.25
14.	Culinary Arts	.45	.48	.53	.31	.40	.50	.35	.41	.46	.43	.44	.26	.10	.23	.25
15.	Counseling and Helping	.68	.69	.77	.65	.50	.34	.27	.40	.28	.49	.54	.29	.08	.19	.14
16.	Teaching and Education	-	.58	.54	.48	.43	.28	.29	.39	.21	.37	.37	.31	.13	.18	.10
17.	Human Resources and Training	.67	-	.72	.47	.36	.71	.61	.86	.59	.70	.70	.60	.35	.40	.51
18.	Social Sciences	.67	.76	-	.52	.44	.58	.41	.54	.50	.82	.80	.39	.29	.49	.47
19.	Religion and Spirituality	.55	.50	.56	-	.30	.24	.23	.27	.23	.39	.31	.25	.12	.20	.15
20.	Healthcare Services	.51	.45	.55	.36	-	.19	.30	.39	.17	.20	.46	.37	.28	.30	.21
21.	Marketing and Advertising	.38	.76	.62	.28	.31	-	.79	.75	.78	.73	.71	.52	.34	.45	.67
22.	Sales	.32	.65	.45	.25	.36	.83	-	.73	.63	.55	.63	.60	.45	.41	.65
23.	Management	.45	.86	.59	.29	.46	.80	.77	-	.65	.65	.73	.68	.49	.45	.66
24.	Entrepreneurship	.26	.61	.50	.21	.24	.81	.68	.69	-	.61	.64	.46	.40	.48	.69
25.	Politics and Public Speaking	.50	.76	.83	.42	.33	.77	.61	.71	.66	-	.88	.35	.31	.41	.62
26.	Law	.46	.74	.80	.34	.51	.77	.69	.78	.68	.91	-	.52	.51	.48	.72
27.	Office Management	.39	.64	.49	.30	.45	.62	.65	.71	.49	.47	.61	-	.64	.63	.58
28.	Taxes and Accounting	.20	.42	.37	.15	.32	.46	.53	.55	.47	.42	.60	.69	-	.59	.77
29.	Programming and Information Systems	.25	.39	.46	.18	.38	.43	.37	.42	.44	.35	.43	.63	.54	-	.57
30.	Finance and Investing	.16	.52	.47	.13	.22	.72	.69	.68	.75	.67	.76	.58	.76	.44	-

Note. For correlations women above the diagonal; men below the diagonal.

Table 26, Table 27, and

Table 28 present the test-retest data for the *SuperStrong BIS scores*. The average test-retest for the entire sample, sample retested at 1-7 months, and sample retested at 8-23 months were all .79. The average test-retest reliabilities for the *Strong Interest Inventory* were .84, .85, .82 respectively. The average difference between the *Strong Interest Inventory* and the *SuperStrong* was .05, .07, .03 such that the *Strong Interest Inventory* had slightly higher test-retest values. Again, taken as a whole, these results indicate a very high degree of agreement between the *Strong* and *SuperStrong* results.

Table 26 Test-Retest Correlations, Mean, and Standard Deviation for the SuperStrong Basic Interest Scales

		Test		Retest	
BIS	Test-Retest Correlation	Mean	SD	Mean	SD
Overall Sample (*N* = 168)					
Mechanics and Construction	.87	49.32	8.27	50.27	8.72
Computer Hardware and Electronics	.84	49.47	8.74	50.00	8.96
Military	.85	49.07	6.34	49.71	6.48
Protective Services	.81	49.67	7.62	50.70	7.76
Nature and Agriculture	.79	50.49	9.05	51.65	8.57
Athletics	.83	49.44	8.97	49.82	8.82
Science	.83	51.69	9.74	52.10	9.18
Research	.78	51.96	8.17	52.13	8.12
Medical Science	.80	50.52	9.14	51.60	8.95
Mathematics	.83	50.60	6.57	50.72	6.38
Visual Arts and Design	.74	52.64	8.43	53.38	8.58
Performing Arts	.74	52.57	9.12	53.08	8.69
Writing and Mass Communication	.82	53.08	9.15	53.59	8.93
Culinary Arts	.68	50.84	7.16	51.43	6.97
Counseling and Helping	.83	51.77	8.69	52.08	9.17
Teaching and Education	.78	51.88	9.63	52.46	8.74
Human Resources and Training	.80	49.80	8.35	49.92	8.51
Social Sciences	.75	52.64	6.73	52.93	7.07
Religion and Spirituality	.73	50.60	8.00	50.72	7.73
Healthcare Services	.77	50.36	8.69	51.67	8.47
Marketing and Advertising	.84	48.15	9.57	49.27	8.96
Sales	.73	48.47	9.38	49.14	9.01
Management	.76	48.63	8.29	49.30	8.27
Entrepreneurship	.77	46.57	8.94	47.18	8.81
Politics and Public Speaking	.77	50.01	6.67	50.12	6.78
Law	.75	48.96	6.03	49.48	6.08
Office Management	.76	50.43	8.88	51.46	8.48
Taxes and Accounting	.79	49.63	8.60	50.08	8.56

		Test		Retest	
BIS	Test-Retest Correlation	Mean	SD	Mean	SD
Programming and Information Systems	.83	49.75	8.55	50.40	8.63
Finance and Investing	.79	48.78	9.41	48.74	9.16

Note. All p-values < .001.

Table 27 Test-Retest Correlations, Mean, and Standard Deviation for the SuperStrong Basic Interest Scales

		Test		Retest	
BIS	Test-Retest Correlation	Mean	SD	Mean	SD
1-7 Months (N =87)					
Mechanics and Construction	.88	48.62	8.47	49.74	8.58
Computer Hardware and Electronics	.87	49.13	9.10	49.40	8.61
Military	.80	48.47	6.22	49.18	6.19
Protective Services	.76	48.89	7.38	49.93	7.99
Nature and Agriculture	.75	49.59	8.74	50.66	8.51
Athletics	.83	49.32	9.04	49.63	8.89
Science	.82	50.30	9.86	51.27	9.80
Research	.78	50.78	8.99	50.93	8.77
Medical Science	.76	49.34	8.93	50.71	8.96
Mathematics	.82	49.92	6.83	49.93	6.37
Visual Arts and Design	.78	52.05	8.52	52.51	8.64
Performing Arts	.78	51.11	9.23	51.88	9.15
Writing and Mass Communication	.80	52.33	9.19	52.99	8.99
Culinary Arts	.64	50.56	7.37	50.73	7.30
Counseling and Helping	.84	51.75	9.09	51.53	9.00
Teaching and Education	.80	52.12	9.87	52.48	9.11
Human Resources and Training	.81	50.21	9.11	49.85	9.38
Social Sciences	.74	51.96	7.04	51.98	7.44
Religion and Spirituality	.75	50.34	7.85	50.53	7.77
Healthcare Services	.76	49.77	8.98	51.04	8.50
Marketing and Advertising	.82	47.83	9.27	48.87	9.22
Sales	.78	48.35	9.41	49.13	9.20
Management	.77	48.92	8.75	48.99	9.08
Entrepreneurship	.81	46.04	9.54	47.11	9.34
Politics and Public Speaking	.71	49.30	6.68	49.26	7.23
Law	.67	48.28	5.67	48.84	6.32
Office Management	.76	50.35	9.24	50.82	8.70
Taxes and Accounting	.80	48.73	8.86	49.21	8.37
Programming and Information Systems	.86	49.55	9.26	49.76	8.62
Finance and Investing	.82	47.84	9.82	48.27	9.81

Table 28 Test-Retest Correlations, Mean, and Standard Deviation for the SuperStrong Basic Interest Scales

		Test		Retest	
BIS	Test-Retest Correlation	Mean	SD	Mean	SD
8-23 Months (N = 81)					
Mechanics and Construction	.86	50.08	8.02	50.85	8.90
Computer Hardware and Electronics	.81	49.84	8.37	50.64	9.33
Military	.90	49.71	6.44	50.27	6.77
Protective Services	.85	50.51	7.83	51.54	7.46
Nature and Agriculture	.83	51.45	9.34	52.71	8.55
Athletics	.83	49.57	8.96	50.03	8.80
Science	.84	53.19	9.44	52.98	8.44
Research	.76	53.23	7.03	53.42	7.19
Medical Science	.84	51.80	9.26	52.55	8.89
Mathematics	.85	51.33	6.24	51.56	6.32
Visual Arts and Design	.69	53.28	8.33	54.31	8.46
Performing Arts	.68	54.13	8.79	54.37	8.01
Writing and Mass Communication	.85	53.90	9.08	54.23	8.87
Culinary Arts	.73	51.14	6.97	52.18	6.56
Counseling and Helping	.81	51.79	8.29	52.67	9.37
Teaching and Education	.76	51.62	9.42	52.44	8.38
Human Resources and Training	.78	49.36	7.48	50.01	7.52
Social Sciences	.75	53.37	6.34	53.94	6.54
Religion and Spirituality	.72	50.88	8.19	50.92	7.74
Healthcare Services	.78	50.99	8.37	52.36	8.44
Marketing and Advertising	.86	48.50	9.93	49.70	8.70
Sales	.67	48.60	9.40	49.14	8.86
Management	.76	48.32	7.81	49.63	7.34
Entrepreneurship	.72	47.13	8.28	47.26	8.27
Politics and Public Speaking	.85	50.77	6.62	51.05	6.17
Law	.84	49.69	6.34	50.18	5.78
Office Management	.77	50.52	8.52	52.15	8.22
Taxes and Accounting	.79	50.59	8.26	51.01	8.73
Programming and Information Systems	.79	49.96	7.77	51.08	8.64
Finance and Investing	.75	49.78	8.90	49.25	8.43

Another common metric used to evaluate the effectiveness of the *Strong* is examining the relationships between the GOTs and BISs. As discussed earlier, each GOT has a series of related BISs. Table 29 presents these comparisons for the *Strong* and the *SuperStrong,* which were very similar. The average difference between the *SuperStrong* and the *Strong Interest Inventory* is .05, with the *SuperStrong* having slightly higher correlations on average. Again, this is likely due to the reuse of items with small differences in the item weights. These results indicate that the *SuperStrong* is functioning similarly to the *Strong*.

Table 29 Correlation between Basic Interest Scales and General Occupational Themes

		Realistic	Investigative	Artistic	Social	Enterprising	Conventional
Realistic	Mechanics and Construction	.94 (.89)	.62 (.58)	.33 (.32)	.13 (.13)	.36 (.34)	.55 (.51)
	Computer Hardware and Electronics	.75 (.71)	.55 (.52)	.18 (.18)	.08 (.09)	.30 (.30)	.69 (.68)
	Military	.95 (.74)	.60 (.40)	.21 (.15)	.23 (.17)	.42 (.29)	.57 (.39)
	Protective Services	.88 (.72)	.64 (.46)	.37 (.28)	.39 (.31)	.44 (.34)	.50 (.38)
	Nature and Agriculture	.79 (.73)	.55 (.50)	.50 (.45)	.36 (.32)	.28 (.26)	.28 (.26)
	Athletics	.59 (.54)	.23 (.20)	.17 (.14)	.33 (.30)	.44 (.38)	.31 (.27)
Investigative	Science	.59 (.56)	.96 (.94)	.35 (.34)	.21 (.21)	.14 (.15)	.37 (.36)
	Research	.58 (.53)	.86 (.79)	.46 (.43)	.37 (.35)	.46 (.43)	.62 (.58)
	Medical Science	.49 (.44)	.86 (.76)	.31 (.27)	.42 (.4)	.24 (.22)	.38 (.35)
	Mathematics	.62 (.42)	.74 (.66)	.14 (.11)	.20 (.15)	.36 (.25)	.79 (.57)
Artistic	Visual Arts and Design	.44 (.41)	.43 (.41)	.91 (.88)	.40 (.37)	.36 (.34)	.24 (.24)
	Performing Arts	.27 (.25)	.34 (.31)	.90 (.86)	.51 (.46)	.33 (.31)	.15 (.15)
	Writing and Mass Communication	.24 (.21)	.32 (.30)	.83 (.78)	.48 (.44)	.40 (.38)	.25 (.24)
	Culinary Arts	.26 (.21)	.27 (.22)	.60 (.51)	.54 (.43)	.48 (.39)	.21 (.17)
Social	Counseling and Helping	.13 (.13)	.29 (.28)	.49 (.46)	.90 (.86)	.34 (.33)	.20 (.19)
	Teaching and Education	.18 (.16)	.25 (.23)	.50 (.46)	.91 (.87)	.32 (.29)	.21 (.20)
	Human Resources and Training	.27 (.24)	.27 (.25)	.41 (.37)	.79 (.73)	.74 (.68)	.52 (.48)
	Social Sciences	.43 (.34)	.60 (.50)	.72 (.59)	.73 (.60)	.56 (.45)	.45 (.36)
	Religion and Spirituality	.22 (.19)	.21 (.18)	.44 (.36)	.65 (.57)	.27 (.23)	.21 (.18)
	Healthcare Services	.45 (.37)	.64 (.51)	.32 (.24)	.61 (.53)	.26 (.21)	.36 (.30)
Enterprising	Marketing and Advertising	.34 (.32)	.21 (.20)	.42 (.40)	.44 (.41)	.96 (.92)	.57 (.54)
	Sales	.41 (.39)	.19 (.18)	.22 (.21)	.38 (.36)	.90 (.87)	.65 (.62)
	Management	.42 (.38)	.32 (.28)	.25 (.23)	.54 (.49)	.84 (.76)	.68 (.60)
	Entrepreneurship	.45 (.39)	.27 (.23)	.35 (.31)	.29 (.25)	.84 (.78)	.57 (.51)
	Politics and Public Speaking	.45 (.35)	.41 (.31)	.50 (.40)	.47 (.37)	.75 (.59)	.48 (.37)
	Law	.5 (.33)	.51 (.31)	.44 (.29)	.52 (.34)	.76 (.49)	.65 (.42)
Conventional	Office Management	.27 (.25)	.26 (.26)	.22 (.22)	.48 (.44)	.57 (.54)	.86 (.84)
	Taxes and Accounting	.43 (.38)	.44 (.47)	.01 (.02)	.17 (.16)	.44 (.39)	.87 (.81)
	Programming and Information Systems	.64 (.58)	.57 (.51)	.34 (.32)	.19 (.18)	.42 (.39)	.79 (.74)
	Finance and Investing	.47 (.45)	.36 (.34)	.12 (.13)	.15 (.15)	.72 (.69)	.80 (.77)

Note. Full Strong Sample N = 535,908; Shortened Sample 435,804. Values in parentheses are the correlations use the Full Strong Sample.

Table 30 to Table 59 display the strongest positive and negative correlations for each of the Basic Interest Scales in the *SuperStrong*. These results indicate a high degree of empirical and theoretical alignment. Occupations with robust theoretical links to Basic Interest Scales typically are represented within the top 10 correlations. Occupations that are dissimilar tend to appear in the items with the largest negative correlations. Results between the algorithms for men and women are extremely similar in both rank ordering and correlation magnitudes. Taken as a whole, the extensive amount of data provided in these tables provide solid evidence that the *SuperStong* is functioning as anticipated.

Table 30 Correlations Between Mechanics and Construction and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Engineering Technician	.88	Engineering Technician	.92
Engineer	.86	Engineer	.86
Network Administrator	.84	Network Administrator	.81
Software Developer	.82	Technical Support Specialist	.80
Computer Programmer	.82	Computer Programmer	.79
Technical Support Specialist	.81	Software Developer	.78
Military Officer	.74	Military Officer	.78
Computer IS Manager	.72	Fire fighter	.77
Computer Scientist	.71	Electrician	.76
Fire fighter	.71	Computer IS Manager	.73
Enterprising Worker	-.10	Paralegal	-.19
Broadcast Journalist	-.12	Musician	-.21
Business Education Teacher	-.13	Florist	-.21
Florist	-.26	Interior Designer	-.24
Artist	-.26	Speech Pathologist	-.27
Speech Pathologist	-.26	Broadcast Journalist	-.30
Advertising Account Manager	-.28	Mental Health Counselor	-.32
Mental Health Counselor	-.30	Artist	-.35
Farmer Rancher	-.35	Buyer	-.43
Buyer	-.42	Advertising Account Manager	-.44

Note. Ten highest correlations are shaded.

Table 31 Correlations Between Computer Hardware and Electronics and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Technical Support Specialist	.94	Technical Support Specialist	.95
Computer Programmer	.91	Network Administrator	.93
Network Administrator	.91	Computer Programmer	.92
Software Developer	.90	Software Developer	.91
Computer Systems Analyst	.87	Computer Systems Analyst	.90
Computer Scientist	.83	Computer Scientist	.87
Computer IS Manager	.83	Computer IS Manager	.85
Computer Mathematics Manager	.82	Computer Mathematics Manager	.81
Engineer	.78	Engineer	.78
Engineering Technician	.75	Engineering Technician	.76
Farmer Rancher	-.18	Florist	-.21
Broadcast Journalist	-.21	Bartender	-.26
Florist	-.21	Speech Pathologist	-.29
Interior Designer	-.22	Enterprising Worker	-.31
Enterprising Worker	-.28	Broadcast Journalist	-.31
Buyer	-.30	Interior Designer	-.32
Speech Pathologist	-.31	Buyer	-.35
Artist	-.37	Artist	-.36
Advertising Account Manager	-.44	Advertising Account Manager	-.57
Mental Health Counselor	-.57	Mental Health Counselor	-.61

Note. Ten highest correlations are shaded.

Table 32 Correlations Between Military and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Fire fighter	.89	Fire fighter	.91
Military Officer	.85	Military Officer	.88
Engineer	.78	Engineering Technician	.79
Engineering Technician	.77	Engineer	.78
Network Administrator	.73	Chiropractor	.71
Technical Support Specialist	.72	Physical Therapist	.70
Software Developer	.72	Network Administrator	.69
Chiropractor	.72	Technical Support Specialist	.68
Computer Programmer	.70	Software Developer	.68
Computer Mathematics Manager	.68	Law Enforcement Officer	.67
Librarian	-.15	Mental Health Counselor	-.20
Photographer	-.17	Photographer	-.24
Mental Health Counselor	-.18	Broadcast Journalist	-.25
Farmer Rancher	-.20	Translator	-.25
Musician	-.27	Librarian	-.27
Florist	-.27	Buyer	-.30
Interior Designer	-.28	Interior Designer	-.32
Buyer	-.35	Musician	-.40
Advertising Account Manager	-.36	Advertising Account Manager	-.43
Artist	-.45	Artist	-.54

Note. Ten highest correlations are shaded.

Table 33 Correlations Between Protective Services and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Fire fighter	.90	Fire fighter	.92
Chiropractor	.81	Chiropractor	.81
Physical Therapist	.78	Physical Therapist	.80
Military Officer	.74	Military Officer	.78
Registered Nurse	.73	Dentist	.71
Dentist	.72	Engineer	.71
Engineer	.70	Registered Nurse	.71
Pharmacist	.68	Pharmacist	.70
Science Teacher	.68	Engineering Technician	.69
Respiratory Therapist	.66	Science Teacher	.67
Business Education Teacher	-.06	Photographer	-.11
Photographer	-.07	Translator	-.14
Musician	-.12	Florist	-.16
Librarian	-.12	Librarian	-.19
Interior Designer	-.20	Farmer Rancher	-.22
Florist	-.23	Interior Designer	-.22
Advertising Account Manager	-.24	Musician	-.24
Farmer Rancher	-.29	Buyer	-.29
Buyer	-.31	Advertising Account Manager	-.29
Artist	-.42	Artist	-.48

Note. Ten highest correlations are shaded.

Table 34 Correlations Between Nature and Agriculture and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Chiropractor	.75	Chiropractor	.78
Fire fighter	.74	Fire fighter	.77
Urban Regional Planner	.70	Urban Regional Planner	.69
Engineering Technician	.62	Recreation Therapist	.66
Veterinarian	.60	Vocational Agriculture Teacher	.61
Forester	.60	Veterinarian	.61
Science Teacher	.60	Forester	.61
Dentist	.60	Physical Therapist	.61
Landscape Grounds Manager	.59	Registered Nurse	.60
Engineer	.58	Landscape Grounds Manager	.59
Artist	-.08	Advertising Account Manager	-.05
Life Insurance Agent	-.08	Production Worker	-.07
Financial Analyst	-.11	Financial Analyst	-.08
Optician	-.13	Optician	-.10
Production Worker	-.17	Restaurant Manager	-.14
Business Education Teacher	-.20	Business Education Teacher	-.14
Restaurant Manager	-.21	Artist	-.17
Florist	-.23	Florist	-.18
Farmer Rancher	-.36	Farmer Rancher	-.26
Buyer	-.42	Buyer	-.36

Note. Ten highest correlations are shaded.

Table 35 Correlations Between Athletics and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Parks Recreation Manager	.83	Parks Recreation Manager	.85
Physical Therapist	.72	Physical Therapist	.71
Recreation Therapist	.66	Athletic Trainer	.67
Bartender	.65	Law Enforcement Officer	.66
Law Enforcement Officer	.65	Recreation Therapist	.65
Athletic Trainer	.63	Bartender	.65
Fire fighter	.61	Technical Sales Representative	.64
Technical Sales Representative	.60	Personal Financial Advisor	.61
Personal Financial Advisor	.57	Fire fighter	.60
Wholesale Sales Representative	.51	Wholesale Sales Representative	.57
Technical Writer	-.12	Technical Writer	-.19
Farmer Rancher	-.12	Geologist	-.22
Geologist	-.13	Medical Illustrator	-.24
Photographer	-.17	Photographer	-.26
Mathematician	-.18	Mathematician	-.27
Biologist	-.20	Biologist	-.31
Musician	-.26	Musician	-.38
Artist	-.39	Librarian	-.47
Translator	-.42	Translator	-.47
Librarian	-.42	Artist	-.49

Note. Ten highest correlations are shaded.

Table 36 Correlations Between Science and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Science Teacher	.93	Science Teacher	.93
Optometrist	.91	Optometrist	.92
Dentist	.90	Dentist	.90
Medical Technologist	.89	Medical Technologist	.89
Engineer	.84	Pharmacist	.85
Veterinarian	.84	Veterinarian	.83
Pharmacist	.83	Respiratory Therapist	.83
Chiropractor	.80	Engineer	.83
RD Manager	.80	Physicist	.81
Physicist	.80	Chemist	.79
Cosmetologist	-.29	Cosmetologist	-.27
Restaurant Manager	-.34	Life Insurance Agent	-.31
Life Insurance Agent	-.35	Restaurant Manager	-.32
Interior Designer	-.38	Paralegal	-.38
Paralegal	-.38	Interior Designer	-.40
Farmer Rancher	-.42	Business Education Teacher	-.42
Business Education Teacher	-.46	Farmer Rancher	-.43
Advertising Account Manager	-.48	Advertising Account Manager	-.51
Florist	-.63	Florist	-.64
Buyer	-.69	Buyer	-.69

Note. Ten highest correlations are shaded.

Table 37 Correlations Between Research and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Engineer	.86	Engineer	.85
Sociologist	.84	Sociologist	.84
Software Developer	.82	Computer Mathematics Manager	.81
University Faculty Member	.81	Software Developer	.79
Computer Mathematics Manager	.80	University Faculty Member	.78
Computer Programmer	.80	Management Analyst	.78
Psychologist	.80	Science Teacher	.78
Network Administrator	.79	Psychologist	.78
Management Analyst	.78	Computer Programmer	.77
Urban Regional Planner	.76	Urban Regional Planner	.75
Optician	-.14	Production Worker	-.15
Military Enlisted	-.18	Landscape Grounds Manager	-.15
Production Worker	-.21	Interior Designer	-.15
Radiologic Technologist	-.27	Radiologic Technologist	-.26
Advertising Account Manager	-.28	Cosmetologist	-.27
Cosmetologist	-.29	Advertising Account Manager	-.32
Artist	-.34	Buyer	-.37
Buyer	-.41	Artist	-.40
Florist	-.46	Florist	-.45
Farmer Rancher	-.59	Farmer Rancher	-.58

Note. Ten highest correlations are shaded.

Table 38 Correlations Between Medical Science and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Pharmacist	.92	Registered Nurse	.92
Registered Nurse	.92	Pharmacist	.92
Dentist	.90	Dentist	.90
Respiratory Therapist	.90	Respiratory Therapist	.88
Chiropractor	.88	Chiropractor	.87
Optometrist	.87	Optometrist	.86
Science Teacher	.85	Science Teacher	.85
Physical Therapist	.81	Physical Therapist	.81
Veterinarian	.80	Veterinarian	.78
Medical Technologist	.80	Medical Technologist	.77
Photographer	-.17	Photographer	-.13
Broadcast Journalist	-.21	Broadcast Journalist	-.16
Farmer Rancher	-.28	Business Education Teacher	-.23
Business Education Teacher	-.31	Paralegal	-.27
Artist	-.34	Interior Designer	-.34
Paralegal	-.35	Farmer Rancher	-.36
Interior Designer	-.39	Artist	-.38
Advertising Account Manager	-.45	Advertising Account Manager	-.41
Buyer	-.47	Buyer	-.44
Florist	-.49	Florist	-.46

Note. Ten highest correlations are shaded.

Table 39 Correlations Between Mathematics and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Actuary	.93	Actuary	.93
Engineer	.89	Engineer	.88
Computer Programmer	.87	Software Developer	.85
Software Developer	.87	Computer Programmer	.84
Accountant	.83	Accountant	.82
Financial Manager	.82	Auditor	.81
Network Administrator	.81	Computer Mathematics Manager	.81
Auditor	.81	Financial Manager	.80
Computer Scientist	.81	Computer IS Manager	.79
Computer IS Manager	.80	Mathematics Teacher	.78
Musician	-.30	Buyer	-.32
Buyer	-.37	Musician	-.32
Broadcast Journalist	-.37	Speech Pathologist	-.35
Interior Designer	-.39	Broadcast Journalist	-.36
Speech Pathologist	-.40	Florist	-.37
Photographer	-.40	Interior Designer	-.39
Florist	-.41	Mental Health Counselor	-.41
Mental Health Counselor	-.45	Photographer	-.42
Artist	-.54	Artist	-.59
Advertising Account Manager	-.61	Advertising Account Manager	-.61

Note. Ten highest correlations are shaded.

Table 40 Correlations Between Visual Arts and Design and OSs for Women and Men

OS Correlations for Women	r	OS Correlations for Men	r
Arts Entertainment Manager	.90	Arts Entertainment Manager	.90
Architect	.85	Editor	.83
Graphic Designer	.84	Architect	.83
Editor	.84	Graphic Designer	.82
Art Teacher	.81	Art Teacher	.80
Technical Writer	.80	Technical Writer	.80
Urban Regional Planner	.76	Urban Regional Planner	.75
ESL Instructor	.71	ESL Instructor	.70
Photographer	.68	English Teacher	.68
English Teacher	.68	Photographer	.64
Athletic Trainer	-.16	Financial Analyst	-.17
Business Education Teacher	-.18	Optician	-.18
Medical Technician	-.19	Buyer	-.21
Law Enforcement Officer	-.23	Automobile Mechanic	-.22
Automobile Mechanic	-.26	Law Enforcement Officer	-.24
Radiologic Technologist	-.31	Radiologic Technologist	-.27
Military Enlisted	-.34	Military Enlisted	-.29
Emergency Medical Technician	-.41	Emergency Medical Technician	-.33
Production Worker	-.54	Production Worker	-.47
Farmer Rancher	-.75	Farmer Rancher	-.74

Note. Ten highest correlations are shaded.

Table 41 Correlations Between Performing Arts and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Arts Entertainment Manager	.84	Arts Entertainment Manager	.86
Editor	.79	Editor	.83
English Teacher	.76	English Teacher	.79
ESL Instructor	.74	ESL Instructor	.78
Urban Regional Planner	.70	Art Teacher	.74
Art Teacher	.70	Technical Writer	.73
Instructional Coordinator	.69	Urban Regional Planner	.71
Technical Writer	.68	Instructional Coordinator	.70
Reporter	.65	Reporter	.68
Flight Attendant	.65	Religious Spiritual Leader	.67
Mathematics Teacher	-.20	Landscape Grounds Manager	-.24
Vocational Agriculture Teacher	-.24	Law Enforcement Officer	-.26
Medical Technician	-.27	Medical Technician	-.27
Optician	-.27	Optician	-.34
Military Enlisted	-.37	Emergency Medical Technician	-.40
Radiologic Technologist	-.38	Radiologic Technologist	-.40
Emergency Medical Technician	-.38	Military Enlisted	-.42
Automobile Mechanic	-.44	Automobile Mechanic	-.45
Production Worker	-.57	Production Worker	-.57
Farmer Rancher	-.78	Farmer Rancher	-.81

Note. Ten highest correlations are shaded.

Table 42 Correlations Between Writing and Mass Communication and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
English Teacher	.93	English Teacher	.94
Reporter	.93	Reporter	.93
Editor	.90	Editor	.90
Public Relations Director	.88	ESL Instructor	.88
Attorney	.88	Public Relations Director	.87
ESL Instructor	.87	Attorney	.85
Urban Regional Planner	.85	Urban Regional Planner	.84
Public Administrator	.85	Technical Writer	.83
Technical Writer	.84	Arts Entertainment Manager	.83
Arts Entertainment Manager	.82	Sociologist	.82
Electrician	-.38	Landscape Grounds Manager	-.38
Vocational Agriculture Teacher	-.40	Electrician	-.41
Optician	-.44	Optician	-.47
Medical Technician	-.51	Medical Technician	-.48
Military Enlisted	-.53	Military Enlisted	-.53
Emergency Medical Technician	-.60	Emergency Medical Technician	-.56
Automobile Mechanic	-.65	Automobile Mechanic	-.63
Radiologic Technologist	-.70	Radiologic Technologist	-.68
Production Worker	-.77	Production Worker	-.74
Farmer Rancher	-.86	Farmer Rancher	-.86

Note. Ten highest correlations are shaded.

Table 43 Correlations Between Culinary Arts and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Chef	.82	Chef	.82
Dietitian	.66	Dietitian	.69
Bartender	.65	Instructional Coordinator	.63
Arts Entertainment Manager	.61	Arts Entertainment Manager	.62
Instructional Coordinator	.61	Bartender	.61
Flight Attendant	.61	Flight Attendant	.60
Technical Sales Representative	.57	Training Development Specialist	.58
Marketing Manager	.56	Secondary School Teacher	.57
Training Development Specialist	.56	Religious Spiritual Leader	.56
Secondary School Teacher	.55	Rehabilitation Counselor	.56
Military Enlisted	-.12	Military Enlisted	-.09
Forester	-.16	Forester	-.09
Artist	-.17	Biologist	-.16
Radiologic Technologist	-.18	Automobile Mechanic	-.18
Biologist	-.20	Radiologic Technologist	-.20
Automobile Mechanic	-.24	Artist	-.20
Geologist	-.24	Mathematician	-.21
Production Worker	-.25	Production Worker	-.22
Mathematician	-.25	Geologist	-.22
Farmer Rancher	-.43	Farmer Rancher	-.44

Note. Ten highest correlations are shaded.

Table 44 Correlations Between Counseling and Helping and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Rehabilitation Counselor	.92	Rehabilitation Counselor	.93
Religious Spiritual Leader	.89	Religious Spiritual Leader	.92
Secondary School Teacher	.87	Secondary School Teacher	.89
Enterprising Worker	.85	Elementary School Teacher	.87
Career Counselor	.85	Career Counselor	.85
Elementary School Teacher	.83	Middle School Teacher	.85
Middle School Teacher	.82	School Counselor	.84
Community Service Director	.80	Instructional Coordinator	.84
School Counselor	.80	University Administrator	.84
University Administrator	.80	Community Service Director	.83
Radiologic Technologist	-.19	Carpenter	-.21
Production Worker	-.22	Electrician	-.24
Carpenter	-.23	Landscape Grounds Manager	-.26
Artist	-.25	Radiologic Technologist	-.27
Optician	-.26	Artist	-.27
Electrician	-.27	Production Worker	-.27
Geologist	-.29	Optician	-.28
Landscape Grounds Manager	-.30	Geologist	-.28
Automobile Mechanic	-.38	Automobile Mechanic	-.36
Farmer Rancher	-.44	Farmer Rancher	-.53

Note. Ten highest correlations are shaded.

Table 45 Correlations Between Teaching and Education and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Elementary School Teacher	.95	Elementary School Teacher	.96
Middle School Teacher	.93	Middle School Teacher	.94
Special Education Teacher	.91	Special Education Teacher	.91
Secondary School Teacher	.84	Secondary School Teacher	.89
Recreation Therapist	.83	Recreation Therapist	.85
School Counselor	.81	School Counselor	.85
Community Service Director	.81	Community Service Director	.83
Rehabilitation Counselor	.75	Rehabilitation Counselor	.82
Enterprising Worker	.75	Religious Spiritual Leader	.82
Religious Spiritual Leader	.75	Instructional Coordinator	.80
Medical Technician	-.19	Electrician	-.18
Radiologic Technologist	-.20	Medical Technician	-.21
Electrician	-.20	Geologist	-.22
Production Worker	-.20	Landscape Grounds Manager	-.24
Geologist	-.23	Artist	-.28
Artist	-.27	Production Worker	-.29
Landscape Grounds Manager	-.29	Radiologic Technologist	-.30
Automobile Mechanic	-.30	Automobile Mechanic	-.32
Optician	-.31	Optician	-.36
Farmer Rancher	-.35	Farmer Rancher	-.49

Note. Ten highest correlations are shaded.

Table 46 Correlations Between Human Resources and Training and OSs for Women and Men

OS Correlations for Women	r	OS Correlations for Men	r
Human Resources Specialist	.94	Human Resources Specialist	.94
Human Resources Manager	.94	Human Resources Manager	.94
Training Development Specialist	.92	Training Development Specialist	.93
Operations Manager	.89	School Administrator	.91
School Administrator	.89	Nursing Home Administrator	.89
University Administrator	.86	Operations Manager	.88
Nursing Home Administrator	.86	Instructional Coordinator	.88
Instructional Coordinator	.86	University Administrator	.87
Top Executive Business Finance	.84	School Counselor	.85
School Counselor	.84	Top Executive Business Finance	.85
Medical Illustrator	-.32	Physician	-.28
Automobile Mechanic	-.34	Medical Illustrator	-.32
Forester	-.37	Forester	-.33
Farmer Rancher	-.39	Carpenter	-.35
Radiologic Technologist	-.39	Mathematician	-.37
Mathematician	-.39	Radiologic Technologist	-.40
Biologist	-.42	Biologist	-.41
Carpenter	-.43	Farmer Rancher	-.43
Geologist	-.49	Geologist	-.48
Artist	-.61	Artist	-.62

Note. Ten highest correlations are shaded.

Table 47 Correlations Between Social Sciences and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Instructional Coordinator	.91	Instructional Coordinator	.92
Rehabilitation Counselor	.89	Rehabilitation Counselor	.91
University Administrator	.89	Urban Regional Planner	.90
Urban Regional Planner	.88	University Administrator	.90
Religious Spiritual Leader	.85	Religious Spiritual Leader	.87
Sociologist	.85	Training Development Specialist	.86
Attorney	.85	Sociologist	.86
Training Development Specialist	.84	Secondary School Teacher	.86
University Faculty Member	.84	Public Administrator	.85
Public Administrator	.84	University Faculty Member	.85
Landscape Grounds Manager	-.24	Emergency Medical Technician	-.21
Horticulturist	-.24	Horticulturist	-.22
Emergency Medical Technician	-.25	Landscape Grounds Manager	-.26
Artist	-.26	Optician	-.30
Optician	-.31	Military Enlisted	-.31
Military Enlisted	-.35	Artist	-.33
Automobile Mechanic	-.47	Automobile Mechanic	-.42
Radiologic Technologist	-.48	Production Worker	-.43
Production Worker	-.48	Radiologic Technologist	-.47
Farmer Rancher	-.78	Farmer Rancher	-.77

Note. Ten highest correlations are shaded.

Table 48 Correlations Between Religion and Spirituality and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Religious Spiritual Leader	.78	Religious Spiritual Leader	.79
School Counselor	.62	School Counselor	.65
Elementary School Teacher	.58	Elementary School Teacher	.65
Secondary School Teacher	.58	Rehabilitation Counselor	.62
Rehabilitation Counselor	.58	Secondary School Teacher	.62
Instructional Coordinator	.57	Instructional Coordinator	.60
University Administrator	.54	Middle School Teacher	.59
Middle School Teacher	.54	Special Education Teacher	.58
Career Counselor	.53	Enterprising Worker	.58
Enterprising Worker	.53	University Administrator	.58
Carpenter	-.12	Military Enlisted	-.14
Geologist	-.14	Medical Technician	-.16
Artist	-.15	Artist	-.17
Medical Technician	-.16	Geologist	-.17
Production Worker	-.16	Production Worker	-.19
Optician	-.22	Electrician	-.21
Electrician	-.22	Optician	-.24
Radiologic Technologist	-.23	Radiologic Technologist	-.26
Automobile Mechanic	-.31	Automobile Mechanic	-.29
Farmer Rancher	-.31	Farmer Rancher	-.35

Note. Ten highest correlations are shaded.

Table 49 Correlations Between Healthcare Services and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Registered Nurse	.90	Physical Therapist	.91
Physical Therapist	.90	Registered Nurse	.90
Respiratory Therapist	.87	Chiropractor	.86
Pharmacist	.87	Pharmacist	.86
Chiropractor	.85	Respiratory Therapist	.86
Dietitian	.82	Dietitian	.84
Dentist	.79	Dentist	.82
Athletic Trainer	.75	Science Teacher	.76
Fire fighter	.75	Health Information Specialist	.73
Science Teacher	.75	Fire fighter	.73
Farmer Rancher	-.14	Librarian	-.12
Broadcast Journalist	-.19	Broadcast Journalist	-.14
Librarian	-.22	Photographer	-.18
Photographer	-.24	Paralegal	-.19
Paralegal	-.26	Farmer Rancher	-.23
Florist	-.27	Florist	-.25
Buyer	-.30	Interior Designer	-.28
Interior Designer	-.32	Buyer	-.32
Advertising Account Manager	-.36	Advertising Account Manager	-.32
Artist	-.45	Artist	-.45

Note. Ten highest correlations are shaded.

Table 50 Correlations Between Marketing and Advertising and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Wholesale Sales Representative	.95	Wholesale Sales Representative	.96
Realtor	.94	Realtor	.95
Purchasing Agent	.93	Purchasing Agent	.93
Technical Sales Representative	.92	Technical Sales Representative	.93
Sales Manager	.91	Sales Manager	.93
Securities Sales Agent	.91	Securities Sales Agent	.93
Marketing Manager	.91	Marketing Manager	.91
Top Executive Business Finance	.87	Top Executive Business Finance	.90
Operations Manager	.86	Operations Manager	.89
Personal Financial Advisor	.86	Personal Financial Advisor	.88
Chemist	-.34	Musician	-.30
Carpenter	-.37	Carpenter	-.30
Farmer Rancher	-.39	Farmer Rancher	-.36
Radiologic Technologist	-.40	Radiologic Technologist	-.36
Physician	-.52	Forester	-.46
Forester	-.52	Physician	-.47
Artist	-.52	Mathematician	-.57
Geologist	-.59	Geologist	-.58
Mathematician	-.61	Artist	-.62
Biologist	-.65	Biologist	-.64

Note. Ten highest correlations are shaded.

Table 51 Correlations Between Sales and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Realtor	.89	Realtor	.91
Wholesale Sales Representative	.87	Wholesale Sales Representative	.90
Securities Sales Agent	.86	Technical Sales Representative	.89
Technical Sales Representative	.86	Securities Sales Agent	.88
Purchasing Agent	.85	Purchasing Agent	.88
Personal Financial Advisor	.84	Sales Manager	.86
Sales Manager	.83	Personal Financial Advisor	.86
Loan Officer Counselor	.83	Credit Manager	.83
Life Insurance Agent	.80	Loan Officer Counselor	.83
Credit Manager	.79	Life Insurance Agent	.82
Geographer	-.26	Geographer	-.27
Carpenter	-.29	Photographer	-.31
Musician	-.36	Forester	-.33
Forester	-.36	Musician	-.44
Medical Illustrator	-.38	Medical Illustrator	-.46
Physician	-.49	Physician	-.49
Geologist	-.53	Geologist	-.54
Mathematician	-.54	Mathematician	-.54
Biologist	-.64	Biologist	-.65
Artist	-.70	Artist	-.75

Note. Ten highest correlations are shaded.

Table 52 Correlations Between Management and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Operations Manager	.91	Operations Manager	.92
Business Finance Supervisor	.90	Business Finance Supervisor	.91
Facilities Manager	.88	Purchasing Agent	.90
Purchasing Agent	.88	Facilities Manager	.89
Nursing Home Administrator	.86	Nursing Home Administrator	.88
Securities Sales Agent	.85	Securities Sales Agent	.86
Top Executive Business Finance	.84	Top Executive Business Finance	.86
Credit Manager	.83	Realtor	.85
Personal Financial Advisor	.83	Wholesale Sales Representative	.85
Realtor	.83	Sales Manager	.85
Forester	-.32	Graphic Designer	-.24
Carpenter	-.32	Forester	-.28
Photographer	-.33	Physician	-.33
Physician	-.34	Photographer	-.37
Mathematician	-.40	Mathematician	-.40
Geologist	-.43	Geologist	-.44
Medical Illustrator	-.45	Medical Illustrator	-.48
Musician	-.45	Musician	-.48
Biologist	-.53	Biologist	-.54
Artist	-.79	Artist	-.82

Note. Ten highest correlations are shaded.

Table 53 Correlations Between Entrepreneurship and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Securities Sales Agent	.80	Sales Manager	.83
Sales Manager	.80	Securities Sales Agent	.83
Top Executive Business Finance	.79	Realtor	.81
Realtor	.78	Top Executive Business Finance	.81
Wholesale Sales Representative	.78	Wholesale Sales Representative	.81
Operations Manager	.77	Operations Manager	.80
Technical Sales Representative	.76	Technical Sales Representative	.79
Personal Financial Advisor	.75	Personal Financial Advisor	.78
Marketing Manager	.74	Purchasing Agent	.77
Purchasing Agent	.74	Management Analyst	.76
Musician	-.17	Medical Illustrator	-.21
Medical Technician	-.18	Forester	-.26
Forester	-.28	Musician	-.28
Physician	-.30	Radiologic Technologist	-.29
Geologist	-.32	Physician	-.29
Radiologic Technologist	-.33	Farmer Rancher	-.30
Farmer Rancher	-.35	Geologist	-.32
Mathematician	-.36	Mathematician	-.36
Artist	-.41	Biologist	-.45
Biologist	-.43	Artist	-.50

Note. Ten highest correlations are shaded.

Table 54 Correlations Between Politics and Public Speaking and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Elected Public Official	.94	Elected Public Official	.94
Public Administrator	.93	Public Administrator	.94
School Administrator	.89	School Administrator	.91
Top Executive Business Finance	.87	Top Executive Business Finance	.89
Marketing Manager	.87	Marketing Manager	.89
Attorney	.87	Human Resources Manager	.89
Training Development Specialist	.86	Training Development Specialist	.88
Human Resources Manager	.86	Management Analyst	.87
Sales Manager	.84	Human Resources Specialist	.86
Management Analyst	.84	Sales Manager	.86
Geologist	-.27	Medical Technician	-.28
Carpenter	-.29	Biologist	-.29
Emergency Medical Technician	-.31	Carpenter	-.31
Medical Technician	-.33	Geologist	-.31
Artist	-.38	Production Worker	-.32
Production Worker	-.40	Automobile Mechanic	-.37
Horticulturist	-.44	Horticulturist	-.38
Automobile Mechanic	-.45	Artist	-.49
Radiologic Technologist	-.63	Radiologic Technologist	-.59
Farmer Rancher	-.66	Farmer Rancher	-.61

Note. Ten highest correlations are shaded.

Table 55 Correlations Between Law and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Management Analyst	.85	Management Analyst	.88
Top Executive Business Finance	.84	Top Executive Business Finance	.87
Sales Manager	.83	Sales Manager	.86
School Administrator	.82	School Administrator	.85
Operations Manager	.82	Operations Manager	.85
Securities Sales Agent	.81	Auditor	.85
Personal Financial Advisor	.80	Securities Sales Agent	.84
Elected Public Official	.80	Personal Financial Advisor	.84
Auditor	.80	Elected Public Official	.83
Human Resources Manager	.80	Business Finance Supervisor	.83
Mathematician	-.21	Mathematician	-.24
Musician	-.22	Forester	-.26
Automobile Mechanic	-.24	Geologist	-.28
Geologist	-.24	Medical Illustrator	-.28
Biologist	-.25	Musician	-.28
Forester	-.26	Biologist	-.30
Radiologic Technologist	-.31	Horticulturist	-.32
Horticulturist	-.37	Radiologic Technologist	-.32
Farmer Rancher	-.52	Farmer Rancher	-.49
Artist	-.59	Artist	-.67

Note. Ten highest correlations are shaded.

Table 56 Correlations Between Office Management and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Administrative Assistant	.88	Administrative Assistant	.88
Customer Service Representative	.87	Customer Service Representative	.88
Health Information Specialist	.83	Health Information Specialist	.86
Credit Manager	.82	Credit Manager	.80
Business Finance Supervisor	.78	Business Finance Supervisor	.79
Facilities Manager	.77	Facilities Manager	.77
Food Service Manager	.75	Food Service Manager	.76
Accountant	.75	Accountant	.76
Auditor	.72	Auditor	.75
Nursing Home Administrator	.71	Nursing Home Administrator	.74
Mental Health Counselor	-.23	Graphic Designer	-.21
Graphic Designer	-.23	Forester	-.23
Physician	-.28	Physician	-.25
Geologist	-.29	Carpenter	-.27
Carpenter	-.31	Geologist	-.31
Biologist	-.36	Musician	-.34
Musician	-.37	Biologist	-.36
Photographer	-.38	Photographer	-.37
Medical Illustrator	-.45	Medical Illustrator	-.43
Artist	-.72	Artist	-.73

Note. Ten highest correlations are shaded.

Table 57 Correlations Between Taxes and Accounting and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Financial Manager	.91	Accountant	.91
Accountant	.91	Financial Manager	.91
Auditor	.86	Auditor	.87
Actuary	.83	Actuary	.80
Financial Analyst	.78	Financial Analyst	.79
Business Finance Supervisor	.72	Business Finance Supervisor	.76
Credit Manager	.71	Credit Manager	.75
Computer IS Manager	.70	Management Analyst	.70
Computer Mathematics Manager	.68	Computer Mathematics Manager	.67
Computer Programmer	.67	Health Information Specialist	.67
Graphic Designer	-.33	Broadcast Journalist	-.31
Art Teacher	-.34	Art Teacher	-.32
Broadcast Journalist	-.36	Speech Pathologist	-.36
Medical Illustrator	-.37	Graphic Designer	-.36
Speech Pathologist	-.42	Mental Health Counselor	-.41
Musician	-.45	Medical Illustrator	-.43
Mental Health Counselor	-.49	Musician	-.46
Advertising Account Manager	-.51	Advertising Account Manager	-.47
Photographer	-.52	Photographer	-.55
Artist	-.65	Artist	-.70

Note. Ten highest correlations are shaded.

Table 58 Correlations Between Programming and Information Systems and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Technical Support Specialist	.93	Technical Support Specialist	.93
Computer Programmer	.88	Computer Programmer	.90
Software Developer	.88	Software Developer	.90
Computer Mathematics Manager	.87	Computer Systems Analyst	.89
Computer Systems Analyst	.87	Network Administrator	.88
Network Administrator	.86	Computer Mathematics Manager	.88
Computer IS Manager	.82	Computer Scientist	.82
Computer Scientist	.78	Computer IS Manager	.81
Engineer	.74	Engineer	.75
Actuary	.65	Actuary	.67
Special Education Teacher	-.11	Interior Designer	-.14
Radiologic Technologist	-.13	Bartender	-.16
Florist	-.15	Florist	-.17
Buyer	-.19	Speech Pathologist	-.18
Enterprising Worker	-.22	Enterprising Worker	-.21
Speech Pathologist	-.23	Buyer	-.24
Advertising Account Manager	-.26	Farmer Rancher	-.30
Farmer Rancher	-.34	Artist	-.38
Artist	-.37	Advertising Account Manager	-.39
Mental Health Counselor	-.50	Mental Health Counselor	-.53

Note. Ten highest correlations are shaded.

Table 59 Correlations Between Finance and Investing and OSs for Women and Men

OS Correlations for Women	*r*	OS Correlations for Men	*r*
Financial Manager	.93	Financial Manager	.94
Auditor	.89	Accountant	.90
Accountant	.89	Auditor	.89
Financial Analyst	.84	Financial Analyst	.87
Management Analyst	.83	Sales Manager	.85
Business Finance Supervisor	.82	Securities Sales Agent	.85
Securities Sales Agent	.82	Personal Financial Advisor	.85
Sales Manager	.82	Business Finance Supervisor	.84
Personal Financial Advisor	.81	Management Analyst	.83
Operations Manager	.78	Operations Manager	.82
Art Teacher	-.19	Forester	-.24
Radiologic Technologist	-.20	Graphic Designer	-.27
Occupational Therapist	-.26	Mental Health Counselor	-.28
Photographer	-.32	Occupational Therapist	-.28
Biologist	-.32	Speech Pathologist	-.32
Medical Illustrator	-.33	Photographer	-.39
Mental Health Counselor	-.36	Biologist	-.41
Speech Pathologist	-.36	Medical Illustrator	-.43
Musician	-.43	Musician	-.48
Artist	-.64	Artist	-.69

Note. Ten highest correlations are shaded.

Occupational Scales

Unlike the GOTs and BISs, OSs include gendered scoring. For each occupation on the *Strong*, different items are used for the male and female Occupational Scales. The overlap between the two algorithms may be substantial but differences do occur. Given the smaller number of items in the *SuperStrong* and the increased complexity of gendered scoring, we first sought to determine the strength of relationships between the OSs. If a high degree of overlap existed between the calculated male and female Oss, an average of the two may be possible without losing accuracy. To accomplish this, we began by calculating the male OS score and female OS score for each person. Next, we correlated these two scales together. Across all 130 occupations, the average correlation between the male OS score and female OS score was .83 (N = 535,908). The high degree of overlap between the two OSs lead us to conclude that, for the purposes of a *SuperStrong,* where OSs should be for career exploration, this degree of accuracy would suffice. We do recognize that some occupations, such as Cosmetologist and Food Service Manager, did not show as high of relationships between men and women. However, overall most results were accurate and descriptive. Table 60 presents the correlations between all male and female OSs.

Once we made the determination that the male and female OSs were highly correlated, we created an average of the male and female OSs. We then evaluated the correlation between the average OS with the original male and female OSs to ensure a high degree of overlap with the original values. Table 60 presents these values. The average correlation between the *Strong* male OS with the average

male/female OS was .96 while the female was .95 (*N* = 535,908). Taken as a whole, for the purposes of the *SuperStrong*, these results show a high degree of overlap.

Table 60 Correlations between Male, Female, and Average Scale Scores

	Male with Female	Male with Average	Female with Average
Accountant	.85	.97	.95
Actuary	.92	.98	.98
Administrative Assistant	.82	.96	.95
Advertising Account Manager	.85	.97	.95
Architect	.84	.96	.96
Art Teacher	.91	.98	.98
Artist	.89	.97	.97
Arts Entertainment Manager	.93	.99	.98
Athletic Trainer	.79	.94	.95
Attorney	.95	.99	.99
Auditor	.94	.99	.98
Automobile Mechanic	.71	.95	.90
Bartender	.64	.91	.91
Biologist	.74	.95	.91
Broadcast Journalist	.90	.97	.98
Business Education Teacher	.87	.97	.96
Business Finance Supervisor	.96	.99	.99
Buyer	.91	.97	.98
Career Counselor	.97	.99	.99
Carpenter	.61	.90	.90
Chef	.61	.89	.90
Chemist	.97	.99	.99
Chiropractor	.88	.97	.97
Community Service Director	.49	.92	.79
Computer IS Manager	.52	.96	.73
Computer Programmer	.97	.99	.99
Computer Scientist	.92	.97	.98
Computer Systems Analyst	.53	.98	.70
Computer Mathematics Manager	.91	.98	.97
Cosmetologist	.49	.92	.78
Credit Manager	.71	.95	.89
Customer Service Representative	.85	.97	.95
Dentist	.94	.99	.98
Dietitian	.66	.94	.88
Editor	.98	.99	.99
Elected Public Official	.96	.99	.99
Electrician	.50	.87	.86
Elementary School Teacher	.92	.99	.97
Emergency Medical Technician	.82	.97	.94
Engineer	.98	.99	1.00
Engineering Technician	.75	.90	.96
English Teacher	.97	.99	.99
ESL Instructor	.84	.95	.97
Facilities Manager	.68	.85	.96
Farmer Rancher	.77	.96	.92
Financial Analyst	.26	.89	.66

	Male with Female	Male with Average	Female with Average
Financial Manager	.91	.98	.97
Fire fighter	.87	.96	.98
Flight Attendant	.84	.97	.95
Florist	.86	.97	.95
Food Service Manager	.45	.87	.83
Forester	.76	.93	.94
Geographer	.85	.96	.97
Geologist	.85	.96	.97
Graphic Designer	.46	.82	.88
Health Information Specialist	.58	.90	.88
Horticulturist	.88	.97	.96
Human Resources Manager	.96	.99	.99
Human Resources Specialist	.91	.98	.97
Instructional Coordinator	.95	.99	.99
Interior Designer	.72	.94	.92
Landscape Grounds Manager	.55	.86	.90
Law Enforcement Officer	.63	.89	.92
Librarian	.88	.97	.97
Life Insurance Agent	.90	.97	.98
Loan Officer Counselor	.86	.97	.95
Management Analyst	.92	.98	.98
Marketing Manager	.94	.99	.98
Mathematician	.77	.93	.95
Mathematics Teacher	.86	.96	.97
Medical Illustrator	.73	.92	.94
Medical Technician	.76	.94	.93
Medical Technologist	.91	.98	.97
Mental Health Counselor	.96	.99	.99
Middle School Teacher	.86	.97	.95
Military Enlisted	.61	.93	.86
Military Officer	.81	.97	.93
Musician	.90	.97	.98
Network Administrator	.97	.99	.99
Nursing Home Administrator	.86	.95	.97
Occupational Therapist	.89	.98	.97
Operations Manager	.97	.99	.99
Optician	.78	.95	.94
Optometrist	.95	.98	.99
Paralegal	.71	.95	.90
Parks Recreation Manager	.88	.97	.97
Personal Financial Advisor	.87	.97	.96
Pharmacist	.88	.97	.97
Photographer	.85	.95	.97
Physical Therapist	.94	.99	.98
Physician	.92	.98	.98
Physicist	.97	.99	.99
Production Worker	.40	.71	.93
Psychologist	.91	.98	.97
Public Administrator	.86	.98	.95
Public Relations Director	.95	.99	.99
Purchasing Agent	.86	.96	.96

	Male with Female	Male with Average	Female with Average
RD Manager	.88	.97	.97
Radiologic Technologist	.88	.98	.96
Realtor	.94	.98	.99
Recreation Therapist	.85	.96	.96
Registered Nurse	.86	.94	.98
Rehabilitation Counselor	.96	.99	.99
Religious Spiritual Leader	.97	.99	.99
Reporter	.88	.97	.97
Respiratory Therapist	.72	.96	.89
Restaurant Manager	.65	.92	.89
Sales Manager	.98	.99	.99
School Administrator	.95	.99	.99
School Counselor	.98	.99	.99
Science Teacher	.95	.99	.99
Secondary School Teacher	.92	.98	.98
Securities Sales Agent	.96	.99	.99
Social Worker	.81	.95	.95
Sociologist	.86	.97	.96
Software Developer	.97	.99	.99
Special Education Teacher	.88	.95	.98
Speech Pathologist	.85	.96	.96
Technical Sales Representative	.94	.98	.99
Technical Support Specialist	.95	.98	.99
Technical Writer	.93	.98	.98
Top Executive Business Finance	.97	.99	.99
Training Development Specialist	.90	.98	.97
Translator	.82	.96	.94
University Administrator	.93	.98	.98
University Faculty Member	.92	.98	.98
Urban Regional Planner	.79	.93	.96
Veterinarian	.94	.98	.99
Vocational Agriculture Teacher	.68	.94	.89
Wholesale Sales Representative	.96	.99	.99

Our next step was to evaluate how well our predictive algorithms related to known data. We began by first correlating the *SuperStrong* OS scores with the *Strong* male OS Scores. This was done to determine if the *SuperStrong* OSs were highly correlated with the original gendered scoring. The average correlation for the *SuperStrong* OSs and the *Strong* male OSs was .85 (*N* = 436,732). Similarly, the average correlation between the *SuperStrong* OSs and the Strong female OSs was .84 (*N* = 436, 732). The correlation between the *SuperStrong* OSs and the average male and female OSs as described previous was .88 (*N*=436,732). Taken as a whole, these results indicate that users can expect a strong relationship of the *SuperStrong* OS results with those of the *Strong*.

Table 61 Correlation between Male, Female, Average, and SuperStrong

	SuperStrong & Male	SuperStrong & Female	SuperStrong & Average
Accountant	.89	.86	.91
Actuary	.83	.85	.85
Administrative Assistant	.88	.86	.91
Advertising Account Manager	.88	.85	.90
Architect	.86	.85	.89
Art Teacher	.89	.86	.89
Artist	.88	.89	.91
Arts Entertainment Manager	.92	.91	.93
Athletic Trainer	.78	.75	.81
Attorney	.85	.84	.85
Auditor	.89	.89	.90
Automobile Mechanic	.83	.83	.90
Bartender	.83	.78	.89
Biologist	.85	.85	.91
Broadcast Journalist	.84	.85	.87
Business Education Teacher	.90	.88	.92
Business Finance Supervisor	.92	.91	.92
Buyer	.88	.90	.91
Career Counselor	.92	.91	.92
Carpenter	.77	.83	.89
Chef	.64	.73	.77
Chemist	.89	.90	.90
Chiropractor	.86	.91	.91
Community Service Director	.84	.76	.93
Computer IS Manager	.81	.71	.87
Computer Programmer	.88	.91	.90
Computer Scientist	.87	.90	.90
Computer Systems Analyst	.86	.61	.88
Computer Mathematics Manager	.89	.86	.90
Cosmetologist	.75	.63	.81
Credit Manager	.87	.85	.93
Customer Service Representative	.89	.88	.92
Dentist	.86	.87	.88
Dietitian	.76	.71	.81
Editor	.92	.92	.92
Elected Public Official	.82	.85	.84
Electrician	.77	.76	.88
Elementary School Teacher	.91	.92	.93
Emergency Medical Technician	.83	.72	.82
Engineer	.90	.91	.91
Engineering Technician	.82	.86	.90
English Teacher	.90	.90	.90
ESL Instructor	.85	.89	.91
Facilities Manager	.80	.80	.86
Farmer Rancher	.87	.81	.89
Financial Analyst	.78	.65	.91
Financial Manager	.91	.88	.92
Fire fighter	.83	.88	.88
Flight Attendant	.84	.78	.85
Florist	.84	.77	.84

	SuperStrong & Male	SuperStrong & Female	SuperStrong & Average
Food Service Manager	.82	.65	.87
Forester	.79	.87	.89
Geographer	.86	.88	.91
Geologist	.88	.89	.92
Graphic Designer	.79	.79	.92
Health Information Specialist	.75	.69	.82
Horticulturist	.70	.63	.69
Human Resources Manager	.91	.90	.91
Human Resources Specialist	.90	.88	.91
Instructional Coordinator	.91	.91	.92
Interior Designer	.82	.82	.88
Landscape Grounds Manager	.67	.78	.83
Law Enforcement Officer	.59	.69	.71
Librarian	.87	.84	.88
Life Insurance Agent	.87	.90	.91
Loan Officer Counselor	.91	.87	.93
Management Analyst	.88	.87	.89
Marketing Manager	.90	.90	.92
Mathematician	.80	.83	.87
Mathematics Teacher	.75	.82	.82
Medical Illustrator	.84	.85	.91
Medical Technician	.84	.78	.87
Medical Technologist	.88	.87	.90
Mental Health Counselor	.90	.91	.91
Middle School Teacher	.88	.88	.91
Military Enlisted	.82	.70	.86
Military Officer	.82	.73	.82
Musician	.82	.88	.88
Network Administrator	.93	.92	.93
Nursing Home Administrator	.85	.84	.87
Occupational Therapist	.84	.84	.86
Operations Manager	.92	.90	.92
Optician	.80	.77	.83
Optometrist	.80	.85	.84
Paralegal	.67	.62	.70
Parks Recreation Manager	.81	.82	.84
Personal Financial Advisor	.92	.89	.93
Pharmacist	.85	.86	.88
Photographer	.85	.87	.90
Physical Therapist	.85	.80	.84
Physician	.86	.88	.89
Physicist	.87	.88	.89
Production Worker	.74	.77	.89
Psychologist	.89	.85	.89
Public Administrator	.83	.75	.83
Public Relations Director	.86	.85	.87
Purchasing Agent	.89	.90	.93
RD Manager	.84	.86	.88
Radiologic Technologist	.81	.76	.81
Realtor	.91	.93	.94
Recreation Therapist	.88	.88	.91

	SuperStrong & Male	SuperStrong & Female	SuperStrong & Average
Registered Nurse	.81	.88	.88
Rehabilitation Counselor	.91	.91	.92
Religious Spiritual Leader	.91	.90	.91
Reporter	.87	.83	.88
Respiratory Therapist	.83	.71	.84
Restaurant Manager	.79	.85	.90
Sales Manager	.92	.93	.93
School Administrator	.85	.83	.85
School Counselor	.90	.90	.90
Science Teacher	.87	.88	.89
Secondary School Teacher	.90	.91	.92
Securities Sales Agent	.93	.93	.94
Social Worker	.87	.88	.92
Sociologist	.83	.82	.85
Software Developer	.91	.91	.92
Special Education Teacher	.89	.91	.93
Speech Pathologist	.83	.83	.86
Technical Sales Representative	.92	.92	.93
Technical Support Specialist	.90	.92	.92
Technical Writer	.89	.91	.92
Top Executive Business Finance	.91	.89	.91
Training Development Specialist	.89	.89	.91
Translator	.85	.86	.89
University Administrator	.90	.89	.91
University Faculty Member	.86	.87	.88
Urban Regional Planner	.81	.85	.88
Veterinarian	.87	.90	.90
Vocational Agriculture Teacher	.77	.70	.81
Wholesale Sales Representative	.93	.93	.94

Table 62 to

Table 64 present the test-retest values of the *SuperStrong* OSs. The average test retest for the entire sample was .83 with an average test-retest of .83 for those retested between 1-7 months later and .83

for those retested between 8-23 months. These results indicate a high degree of consistency between results across time.

Table 62 Test-retest of SuperStrong OSs

		Test		Retest	
Theme	Test-Retest Correlation	Mean	SD	Mean	SD
Overall Sample (N = 168)					
Accountant	.82	34.91	9.17	35.47	9.06
Actuary	.87	27.05	12.66	27.19	12.68
Administrative Assistant	.78	42.13	7.91	43.08	7.75
Advertising Account Manager	.86	35.24	12.16	35.09	11.83
Architect	.80	24.07	13.84	24.31	13.89
Art Teacher	.80	19.02	15.60	19.54	15.51
Artist	.84	32.54	12.68	31.41	12.35
Arts Entertainment Manager	.77	42.51	10.23	43.13	10.03
Athletic Trainer	.83	12.13	13.14	13.31	12.49
Attorney	.79	28.60	12.16	29.03	12.52
Auditor	.79	34.80	9.95	35.27	9.91
Automobile Mechanic	.88	25.05	10.59	25.79	10.76
Bartender	.79	33.26	10.29	34.24	10.22
Biologist	.90	31.76	13.71	31.04	12.56
Broadcast Journalist	.86	34.34	11.72	34.34	11.54
Business Education Teacher	.88	31.14	9.42	31.55	9.22
Business Finance Supervisor	.80	35.24	10.36	35.93	10.12
Buyer	.89	29.36	13.27	29.67	12.32
Career Counselor	.82	33.05	12.86	33.25	13.44
Carpenter	.88	25.75	9.57	26.29	9.87
Chef	.75	29.74	9.40	30.50	8.80
Chemist	.90	24.33	16.31	23.85	14.95
Chiropractor	.82	31.55	11.45	32.99	11.32
Community Service Director	.83	36.07	9.95	36.56	9.92
Computer IS Manager	.86	36.76	8.59	37.06	8.60
Computer Programmer	.87	36.82	9.76	37.41	9.52
Computer Scientist	.89	26.14	13.40	26.14	12.86
Computer Systems Analyst	.84	37.17	8.20	37.33	8.03
Computer Mathematics Manager	.82	32.14	10.47	32.69	10.21
Cosmetologist	.77	33.59	8.13	34.49	8.07
Credit Manager	.83	34.87	9.00	35.71	8.75
Customer Service Representative	.80	40.01	8.38	41.07	8.13
Dentist	.85	26.66	14.02	28.19	13.51
Dietitian	.76	30.68	8.21	31.81	8.29
Editor	.83	33.25	16.19	33.69	15.70
Elected Public Official	.80	25.17	11.53	25.39	11.29
Electrician	.88	25.07	9.59	25.66	9.75
Elementary School Teacher	.82	33.82	11.53	34.44	11.27
Emergency Medical Technician	.83	27.91	10.47	28.80	10.19
Engineer	.87	33.89	10.76	34.49	10.68
Engineering Technician	.90	29.95	10.72	30.90	10.62
English Teacher	.83	21.59	18.76	22.36	17.85
ESL Instructor	.84	34.97	12.64	35.12	12.13
Facilities Manager	.83	37.20	8.84	38.50	8.64
Farmer Rancher	.82	30.43	8.63	30.53	8.34
Financial Analyst	.86	35.64	8.35	35.65	7.88
Financial Manager	.82	30.20	11.35	30.57	11.23
Fire fighter	.86	23.09	12.75	24.69	12.46

		Test		Retest	
Theme	Test-Retest Correlation	Mean	SD	Mean	SD
Flight Attendant	.79	37.80	9.00	38.94	8.51
Florist	.84	31.71	10.18	32.24	9.82
Food Service Manager	.83	34.48	7.31	35.22	7.26
Forester	.88	30.56	12.17	30.81	11.07
Geographer	.87	28.46	13.57	28.10	12.70
Geologist	.90	27.78	13.83	27.06	12.50
Graphic Designer	.78	34.66	10.96	34.74	10.99
Health Information Specialist	.83	37.48	7.82	38.64	7.46
Horticulturist	.74	29.79	8.40	30.71	7.69
Human Resources Manager	.80	32.70	11.98	33.03	12.07
Human Resources Specialist	.80	37.86	10.39	38.23	10.36
Instructional Coordinator	.77	40.88	9.30	41.23	9.36
Interior Designer	.79	29.36	11.85	29.27	11.48
Landscape Grounds Manager	.82	33.17	8.93	34.18	8.84
Law Enforcement Officer	.85	32.25	8.21	32.96	7.98
Librarian	.86	40.96	13.15	40.58	12.29
Life Insurance Agent	.84	30.74	11.87	30.86	10.80
Loan Officer Counselor	.82	32.72	10.49	33.06	10.15
Management Analyst	.77	37.51	9.75	37.96	9.58
Marketing Manager	.81	31.42	12.45	32.05	12.06
Mathematician	.89	20.72	14.06	19.82	12.74
Mathematics Teacher	.86	22.05	10.25	22.41	9.79
Medical Illustrator	.84	18.75	15.20	18.80	14.90
Medical Technician	.86	26.17	11.51	27.02	11.53
Medical Technologist	.88	27.86	11.65	28.70	11.44
Mental Health Counselor	.87	28.77	13.30	28.58	13.78
Middle School Teacher	.82	32.03	12.22	32.64	11.95
Military Enlisted	.86	30.75	9.33	31.70	9.11
Military Officer	.87	30.21	8.35	31.09	8.73
Musician	.87	37.55	11.20	37.08	11.11
Network Administrator	.88	34.43	11.18	35.06	11.01
Nursing Home Administrator	.81	38.24	9.51	39.22	9.37
Occupational Therapist	.80	33.34	11.35	34.49	11.48
Operations Manager	.81	34.25	11.28	34.69	11.05
Optician	.83	32.11	9.73	33.01	9.06
Optometrist	.87	30.36	11.67	31.11	11.05
Paralegal	.83	40.13	7.11	40.31	7.12
Parks Recreation Manager	.82	36.37	9.43	36.99	9.41
Personal Financial Advisor	.81	25.53	12.33	25.95	11.94
Pharmacist	.82	32.81	12.09	34.31	11.86
Photographer	.83	38.16	10.78	38.04	10.78
Physical Therapist	.80	23.49	15.32	25.30	15.04
Physician	.88	27.36	13.58	27.20	12.83
Physicist	.89	13.31	20.71	12.76	19.34
Production Worker	.87	36.28	8.21	36.67	7.93
Psychologist	.82	31.60	11.79	31.57	12.06
Public Administrator	.78	28.91	11.24	29.00	11.20
Public Relations Director	.84	26.02	15.95	26.43	15.51
Purchasing Agent	.86	28.92	12.55	30.09	12.07
RD Manager	.88	24.66	12.78	24.64	12.18
Radiologic Technologist	.81	34.95	9.88	35.87	9.58

		Test		Retest	
Theme	Test-Retest Correlation	Mean	SD	Mean	SD
Realtor	.83	31.52	11.11	32.24	10.45
Recreation Therapist	.81	32.84	10.80	33.83	10.52
Registered Nurse	.82	32.05	12.35	33.48	12.57
Rehabilitation Counselor	.80	34.81	11.30	35.38	11.81
Religious Spiritual Leader	.79	19.03	16.07	19.30	16.55
Reporter	.85	27.79	15.38	28.04	15.19
Respiratory Therapist	.84	28.36	11.40	29.75	11.23
Restaurant Manager	.90	31.16	11.88	31.73	10.86
Sales Manager	.82	25.23	13.85	25.86	13.06
School Administrator	.77	29.85	11.24	30.30	10.82
School Counselor	.82	32.31	11.34	32.69	10.94
Science Teacher	.83	23.36	12.24	24.26	11.58
Secondary School Teacher	.81	33.87	11.68	34.44	11.86
Securities Sales Agent	.82	21.05	14.53	21.64	13.73
Social Worker	.86	33.60	11.21	33.75	11.84
Sociologist	.80	23.76	13.34	23.83	12.94
Software Developer	.87	34.45	10.50	34.99	10.28
Special Education Teacher	.84	33.10	12.82	33.64	12.60
Speech Pathologist	.87	38.28	10.46	38.76	10.66
Technical Sales Representative	.82	33.55	10.32	34.53	9.98
Technical Support Specialist	.85	36.52	9.82	37.44	9.77
Technical Writer	.86	34.85	15.99	35.30	15.40
Top Executive Business Finance	.80	29.52	12.48	29.96	12.08
Training Development Specialist	.80	35.66	11.09	35.88	10.99
Translator	.89	38.98	12.40	38.78	11.74
University Administrator	.79	34.90	11.27	35.09	11.70
University Faculty Member	.80	34.56	9.64	34.41	9.68
Urban Regional Planner	.78	36.08	10.45	36.64	10.19
Veterinarian	.88	23.79	16.44	25.25	15.58
Vocational Agriculture Teacher	.84	23.51	9.79	24.44	9.21
Wholesale Sales Representative	.83	30.50	11.90	31.41	11.42

Table 63 Test-retest of SuperStrong OSs 1-7 Months

		Test		Retest	
Theme	Test-Retest Correlation	Mean	SD	Mean	SD
1-7 Months (N =87)					
Accountant	.82	34.36	9.95	34.83	9.66
Actuary	.87	25.95	13.09	26.41	12.73
Administrative Assistant	.79	42.32	8.38	42.68	8.14
Advertising Account Manager	.85	35.38	11.74	35.08	11.31
Architect	.85	22.47	14.30	23.21	14.44
Art Teacher	.84	18.69	16.29	18.99	15.87
Artist	.86	31.90	14.00	31.17	13.43
Arts Entertainment Manager	.80	41.52	10.31	41.93	10.36
Athletic Trainer	.83	12.08	13.29	13.33	12.45
Attorney	.74	27.32	11.82	28.11	12.83
Auditor	.78	34.07	10.82	34.44	10.44
Automobile Mechanic	.89	25.10	11.07	25.72	11.04
Bartender	.75	32.85	9.89	33.78	9.96
Biologist	.90	30.48	13.24	30.21	12.98
Broadcast Journalist	.85	33.95	11.43	34.04	11.43
Business Education Teacher	.90	32.35	10.35	32.26	10.20
Business Finance Supervisor	.80	35.20	11.64	35.44	11.30
Buyer	.88	30.27	12.70	30.43	12.77
Career Counselor	.83	33.21	13.79	32.84	13.82
Carpenter	.87	25.10	9.42	25.95	10.12
Chef	.75	29.33	9.79	29.56	8.79
Chemist	.89	22.47	15.99	22.68	15.25
Chiropractor	.80	29.83	11.24	31.82	11.71
Community Service Director	.83	36.55	10.26	36.28	10.26
Computer IS Manager	.88	36.30	9.64	36.36	8.62
Computer Programmer	.88	36.05	10.23	36.50	9.49
Computer Scientist	.89	25.03	13.87	25.10	12.83
Computer Systems Analyst	.87	36.77	8.88	36.81	7.95
Computer Mathematics Manager	.84	31.58	11.79	31.74	10.59
Cosmetologist	.75	33.64	7.86	34.36	8.05
Credit Manager	.85	35.06	9.94	35.70	9.52
Customer Service Representative	.81	40.21	9.04	40.67	8.62
Dentist	.85	24.59	13.83	26.83	14.46
Dietitian	.74	30.38	8.51	31.26	8.14
Editor	.86	31.58	16.84	32.26	16.48
Elected Public Official	.73	24.51	11.20	24.52	11.91
Electrician	.89	24.80	9.73	25.48	9.65
Elementary School Teacher	.84	34.36	12.00	34.50	11.31
Emergency Medical Technician	.85	27.99	10.89	28.73	10.37
Engineer	.87	32.63	11.24	33.38	10.75
Engineering Technician	.91	29.00	10.89	30.17	10.65
English Teacher	.82	20.29	19.16	21.66	18.50
ESL Instructor	.86	34.01	13.39	34.23	12.96
Facilities Manager	.85	37.76	9.31	38.49	9.09
Farmer Rancher	.86	31.56	9.30	31.25	9.05
Financial Analyst	.88	35.54	8.95	35.56	8.50
Financial Manager	.82	29.16	12.21	29.61	11.85
Fire fighter	.84	22.04	12.51	23.83	12.62

		Test		Retest	
Theme	Test-Retest Correlation	Mean	SD	Mean	SD
Flight Attendant	.73	37.46	8.39	38.56	8.22
Florist	.83	32.46	9.54	33.02	9.79
Food Service Manager	.83	35.14	7.76	35.30	7.84
Forester	.87	29.69	11.14	30.23	10.89
Geographer	.87	26.96	13.75	26.67	13.71
Geologist	.90	26.66	13.55	26.54	12.91
Graphic Designer	.81	33.86	11.62	33.90	11.32
Health Information Specialist	.83	37.38	8.00	38.15	7.72
Horticulturist	.73	29.64	8.19	30.55	8.01
Human Resources Manager	.78	32.54	12.70	32.38	13.12
Human Resources Specialist	.79	37.91	10.98	37.87	11.31
Instructional Coordinator	.77	40.55	9.75	40.54	9.93
Interior Designer	.80	29.21	11.47	29.19	10.90
Landscape Grounds Manager	.81	32.76	9.16	33.73	8.95
Law Enforcement Officer	.88	32.25	8.65	32.98	8.54
Librarian	.88	40.22	14.12	40.12	13.19
Life Insurance Agent	.84	31.10	11.31	31.06	11.20
Loan Officer Counselor	.81	32.44	10.59	32.94	10.72
Management Analyst	.77	36.82	10.81	36.94	10.64
Marketing Manager	.79	30.82	12.43	31.44	12.91
Mathematician	.88	19.68	13.56	19.16	13.11
Mathematics Teacher	.87	21.93	10.14	22.33	9.54
Medical Illustrator	.88	16.74	16.95	17.55	16.82
Medical Technician	.84	25.50	11.31	26.52	11.62
Medical Technologist	.86	26.81	11.20	27.98	11.68
Mental Health Counselor	.91	28.94	14.47	28.78	13.63
Middle School Teacher	.83	32.47	12.62	32.64	12.03
Military Enlisted	.90	31.32	10.25	31.96	9.70
Military Officer	.86	29.85	8.88	30.79	8.83
Musician	.91	36.55	12.62	36.32	12.29
Network Administrator	.89	33.53	11.66	34.16	10.85
Nursing Home Administrator	.83	38.67	10.32	38.79	10.00
Occupational Therapist	.82	32.84	12.25	33.43	11.76
Operations Manager	.81	34.00	12.24	34.18	12.36
Optician	.85	32.37	9.67	33.35	9.44
Optometrist	.85	28.68	11.35	30.08	11.41
Paralegal	.83	40.45	7.11	40.36	7.37
Parks Recreation Manager	.81	36.62	9.61	36.71	9.65
Personal Financial Advisor	.81	24.91	12.66	25.57	12.75
Pharmacist	.80	31.61	11.95	33.50	11.85
Photographer	.87	37.30	11.41	37.30	10.76
Physical Therapist	.77	22.14	14.95	24.15	14.63
Physician	.88	25.61	13.34	26.04	13.25
Physicist	.89	10.99	20.64	10.92	19.69
Production Worker	.89	36.85	8.73	36.97	8.17
Psychologist	.81	29.82	12.49	30.12	12.97
Public Administrator	.74	27.68	11.32	27.88	12.03
Public Relations Director	.81	25.26	15.41	25.60	15.71
Purchasing Agent	.86	28.97	12.92	29.89	13.15
RD Manager	.89	23.22	13.26	23.82	12.54
Radiologic Technologist	.80	35.11	10.21	36.02	10.27

		Test		Retest	
Theme	Test-Retest Correlation	Mean	SD	Mean	SD
Realtor	.83	31.09	11.28	31.88	11.24
Recreation Therapist	.79	32.68	10.81	33.39	10.20
Registered Nurse	.80	30.40	12.74	32.03	12.83
Rehabilitation Counselor	.81	34.61	11.97	34.67	12.07
Religious Spiritual Leader	.79	18.52	16.45	18.35	16.47
Reporter	.85	26.71	15.56	27.38	15.31
Respiratory Therapist	.82	27.31	11.30	28.95	11.72
Restaurant Manager	.90	31.67	11.74	31.98	11.51
Sales Manager	.81	24.37	14.06	25.12	14.06
School Administrator	.74	29.62	11.74	29.67	11.72
School Counselor	.80	32.45	11.66	32.19	11.37
Science Teacher	.82	22.03	11.91	23.34	11.98
Secondary School Teacher	.81	33.75	12.03	33.87	12.00
Securities Sales Agent	.81	20.36	14.94	20.99	15.02
Social Worker	.88	33.86	11.95	33.53	11.52
Sociologist	.79	22.14	14.13	22.23	14.25
Software Developer	.88	33.47	11.07	34.01	10.27
Special Education Teacher	.86	33.75	13.44	33.63	12.54
Speech Pathologist	.89	38.74	11.12	38.70	10.73
Technical Sales Representative	.81	33.16	10.24	34.21	10.41
Technical Support Specialist	.87	36.08	10.19	36.58	9.55
Technical Writer	.88	33.42	16.89	33.96	16.09
Top Executive Business Finance	.79	28.78	13.27	29.11	13.37
Training Development Specialist	.79	35.54	11.61	35.31	11.94
Translator	.91	38.12	13.23	38.28	12.63
University Administrator	.79	34.83	11.98	34.47	12.30
University Faculty Member	.81	33.60	10.31	33.45	10.47
Urban Regional Planner	.78	34.65	10.65	35.49	10.91
Veterinarian	.87	21.57	15.82	24.03	16.73
Vocational Agriculture Teacher	.88	23.75	10.17	24.57	9.62
Wholesale Sales Representative	.82	30.08	12.04	30.90	12.26

Table 64 Test-retest SuperStrong OSs 8-23 months

		Test		Retest	
Theme	Test-Retest Correlation	Mean	SD	Mean	SD
8-23 Months (N = 81)					
Accountant	.81	35.49	8.27	36.16	8.36
Actuary	.86	28.24	12.16	28.03	12.66
Administrative Assistant	.76	41.93	7.43	43.52	7.34
Advertising Account Manager	.87	35.10	12.66	35.09	12.43
Architect	.74	25.80	13.19	25.49	13.27
Art Teacher	.76	19.37	14.92	20.13	15.18
Artist	.82	33.23	11.15	31.67	11.15
Arts Entertainment Manager	.73	43.56	10.10	44.42	9.56
Athletic Trainer	.84	12.19	13.05	13.29	12.62
Attorney	.85	29.99	12.45	30.01	12.19
Auditor	.80	35.58	8.91	36.17	9.29
Automobile Mechanic	.87	24.99	10.11	25.87	10.53
Bartender	.83	33.71	10.75	34.74	10.52
Biologist	.89	33.12	14.15	31.93	12.10
Broadcast Journalist	.87	34.75	12.07	34.68	11.72
Business Education Teacher	.86	29.85	8.19	30.79	8.03
Business Finance Supervisor	.79	35.29	8.85	36.45	8.72
Buyer	.91	28.38	13.87	28.86	11.85
Career Counselor	.81	32.88	11.87	33.69	13.09
Carpenter	.88	26.45	9.74	26.65	9.63
Chef	.75	30.18	9.01	31.51	8.76
Chemist	.91	26.32	16.50	25.10	14.61
Chiropractor	.83	33.39	11.46	34.26	10.82
Community Service Director	.84	35.55	9.64	36.87	9.59
Computer IS Manager	.85	37.26	7.33	37.82	8.57
Computer Programmer	.86	37.66	9.22	38.39	9.52
Computer Scientist	.88	27.33	12.84	27.26	12.88
Computer Systems Analyst	.82	37.59	7.43	37.89	8.14
Computer Mathematics Manager	.81	32.74	8.88	33.70	9.75
Cosmetologist	.79	33.53	8.46	34.62	8.13
Credit Manager	.81	34.68	7.93	35.72	7.90
Customer Service Representative	.78	39.79	7.66	41.49	7.61
Dentist	.86	28.88	13.97	29.64	12.32
Dietitian	.79	31.01	7.92	32.39	8.47
Editor	.79	35.04	15.37	35.22	14.75
Elected Public Official	.87	25.89	11.89	26.32	10.59
Electrician	.87	25.37	9.50	25.85	9.92
Elementary School Teacher	.81	33.24	11.06	34.36	11.30
Emergency Medical Technician	.81	27.83	10.07	28.87	10.05
Engineer	.87	35.24	10.12	35.68	10.54
Engineering Technician	.90	30.96	10.51	31.69	10.59
English Teacher	.83	22.98	18.35	23.11	17.22
ESL Instructor	.80	36.00	11.79	36.07	11.18
Facilities Manager	.80	36.59	8.33	38.51	8.18
Farmer Rancher	.76	29.23	7.73	29.76	7.48
Financial Analyst	.83	35.75	7.70	35.74	7.22
Financial Manager	.81	31.32	10.31	31.60	10.48
Fire fighter	.88	24.21	12.99	25.61	12.30

		Test		Retest	
Theme	Test-Retest Correlation	Mean	SD	Mean	SD
Flight Attendant	.84	38.17	9.65	39.34	8.85
Florist	.86	30.90	10.82	31.40	9.85
Food Service Manager	.83	33.78	6.77	35.14	6.63
Forester	.90	31.48	13.19	31.44	11.28
Geographer	.88	30.06	13.28	29.65	11.40
Geologist	.90	28.98	14.10	27.62	12.11
Graphic Designer	.73	35.52	10.20	35.65	10.62
Health Information Specialist	.82	37.60	7.68	39.18	7.17
Horticulturist	.75	29.94	8.67	30.87	7.39
Human Resources Manager	.82	32.86	11.23	33.73	10.87
Human Resources Specialist	.82	37.82	9.79	38.61	9.30
Instructional Coordinator	.76	41.25	8.83	41.98	8.71
Interior Designer	.79	29.52	12.32	29.35	12.14
Landscape Grounds Manager	.83	33.62	8.72	34.67	8.75
Law Enforcement Officer	.82	32.25	7.76	32.94	7.40
Librarian	.82	41.75	12.06	41.06	11.29
Life Insurance Agent	.85	30.36	12.51	30.64	10.43
Loan Officer Counselor	.83	33.02	10.44	33.18	9.57
Management Analyst	.76	38.26	8.49	39.05	8.22
Marketing Manager	.84	32.06	12.52	32.71	11.13
Mathematician	.90	21.84	14.58	20.52	12.36
Mathematics Teacher	.85	22.18	10.43	22.50	10.11
Medical Illustrator	.76	20.92	12.83	20.15	12.47
Medical Technician	.87	26.88	11.74	27.55	11.48
Medical Technologist	.90	28.99	12.07	29.47	11.19
Mental Health Counselor	.84	28.58	12.01	28.37	14.01
Middle School Teacher	.81	31.55	11.84	32.64	11.94
Military Enlisted	.80	30.14	8.25	31.41	8.48
Military Officer	.88	30.60	7.78	31.42	8.66
Musician	.80	38.62	9.40	37.90	9.69
Network Administrator	.86	35.41	10.62	36.03	11.17
Nursing Home Administrator	.79	37.78	8.60	39.68	8.67
Occupational Therapist	.78	33.89	10.35	35.63	11.14
Operations Manager	.81	34.52	10.22	35.24	9.48
Optician	.81	31.83	9.84	32.65	8.67
Optometrist	.89	32.16	11.82	32.22	10.61
Paralegal	.84	39.79	7.13	40.26	6.90
Parks Recreation Manager	.84	36.10	9.28	37.29	9.19
Personal Financial Advisor	.82	26.19	12.02	26.35	11.06
Pharmacist	.84	34.10	12.18	35.19	11.88
Photographer	.79	39.07	10.05	38.84	10.80
Physical Therapist	.84	24.93	15.67	26.54	15.47
Physician	.87	29.24	13.66	28.44	12.33
Physicist	.89	15.79	20.63	14.74	18.89
Production Worker	.85	35.67	7.61	36.35	7.69
Psychologist	.82	33.51	10.74	33.14	10.87
Public Administrator	.83	30.24	11.07	30.21	10.16
Public Relations Director	.88	26.83	16.55	27.33	15.34
Purchasing Agent	.87	28.87	12.21	30.31	10.88
RD Manager	.88	26.21	12.14	25.51	11.80
Radiologic Technologist	.81	34.77	9.58	35.71	8.84

Theme	Test-Retest Correlation	Test		Retest	
		Mean	SD	Mean	SD
Realtor	.84	31.99	10.96	32.63	9.59
Recreation Therapist	.83	33.02	10.85	34.31	10.89
Registered Nurse	.83	33.82	11.73	35.04	12.18
Rehabilitation Counselor	.79	35.04	10.60	36.15	11.54
Religious Spiritual Leader	.78	19.58	15.74	20.31	16.67
Reporter	.85	28.95	15.18	28.75	15.11
Respiratory Therapist	.85	29.49	11.46	30.60	10.69
Restaurant Manager	.90	30.61	12.07	31.46	10.19
Sales Manager	.83	26.15	13.65	26.65	11.93
School Administrator	.82	30.10	10.74	30.98	9.80
School Counselor	.84	32.17	11.06	33.22	10.51
Science Teacher	.85	24.79	12.50	25.24	11.13
Secondary School Teacher	.82	34.00	11.36	35.06	11.76
Securities Sales Agent	.83	21.80	14.12	22.33	12.26
Social Worker	.84	33.31	10.41	33.98	12.24
Sociologist	.81	25.50	12.29	25.55	11.19
Software Developer	.85	35.49	9.81	36.05	10.24
Special Education Teacher	.81	32.40	12.16	33.66	12.74
Speech Pathologist	.85	37.79	9.74	38.82	10.66
Technical Sales Representative	.83	33.96	10.46	34.88	9.55
Technical Support Specialist	.84	36.99	9.44	38.36	9.97
Technical Writer	.83	36.39	14.91	36.74	14.60
Top Executive Business Finance	.83	30.31	11.59	30.87	10.52
Training Development Specialist	.81	35.80	10.57	36.49	9.90
Translator	.86	39.91	11.46	39.32	10.76
University Administrator	.78	34.97	10.53	35.76	11.07
University Faculty Member	.78	35.60	8.80	35.45	8.70
Urban Regional Planner	.79	37.62	10.07	37.87	9.26
Veterinarian	.90	26.16	16.85	26.56	14.22
Vocational Agriculture Teacher	.80	23.26	9.41	24.30	8.79
Wholesale Sales Representative	.84	30.95	11.81	31.96	10.48

Personal Style Scales

Table 65 presents the relationship between the *SuperStrong* Personal Style Scales and the *Strong* Personal Style Scales. The average correlation was .83, indicating a high degree of consistency between the two assessments. It is worth noting that our prediction of Team Orientation was lower than expected. It is likely that the items included in the *SuperStrong* may not tap into the specific context of the Team Orientation question.

Table 65 Correlations between Personal Style Scales of the Strong and SuperStrong

Personal Style Scale	r
Work Style	.95
Learning Environment	.86
Leadership Style	.84
Risk Taking	.87
Team Orientation	.65

Average N = 436,869

Table 66 presents the intercorrelations between the Personal Styles Scales of the *SuperStrong*. Results of the *SuperStrong* are similar to the *Strong*. However, the *SuperStrong* results are typically higher than those reported by the *Strong* with the average difference for men being .15 higher and the average female scores being .18 higher. These inflations are likely due to items that are descriptive of GOTs, BISs, and OSs but not as descriptive for PSSs. In addition, the PSS items are different in structure and response patterns than those of the *SuperStrong*, which may lead to slightly poorer prediction.

Table 66 Intercorrelations between Personal Style Scales of the SuperStrong

	Work Style	Learning Environment	Leadership Style	Risk Taking	Team Orientation
Work Style	-	.08	.49	.02	.51
Learning Environment	.27	-	.56	.19	.41
Leadership Style	.57	.57	-	.55	.90
Risk Taking	.07	.10	.56	-	.53
Team Orientation	.54	.43	.92	.57	-

Average F N = 262 above the diagonal, 942; M = 173,059 below the diagonal

Table 67 presents the test test-retest reliabilities for the *SuperStrong* Personal Style Scales. The average test-retest for the entire sample was .80, .78 at 1-7 months, and .82 at 8-23 months. Differences between the mean scores between the test and retest values were small. These results indicate a consistent pattern of results over time.

Table 67 Test-Retest Correlations, Mean, and Standard Deviation for the SuperStrong Personal Style Scales

		Test		Retest	
Theme	Test-Retest Correlation	Mean	SD	Mean	SD
Overall Sample (*N* = 168)					
Working Style	.88	49.54	9.16	49.81	8.84
Learning Environment	.79	52.95	7.90	52.54	7.83
Leadership Style	.75	49.64	7.44	49.60	7.55
Risk Taking	.83	49.38	8.40	50.23	8.39
Team Orientation	.76	49.36	5.86	49.29	5.99
1-7 Months (N =87)					
Working Style	.88	50.42	9.55	49.86	9.25
Learning Environment	.82	52.26	8.30	52.16	8.38
Leadership Style	.72	49.06	7.92	48.73	8.28
Risk Taking	.80	48.62	8.23	49.96	8.57
Team Orientation	.75	49.26	6.43	48.73	6.53
8-23 Months (N = 81)					
Working Style	.88	48.60	8.67	49.76	8.43
Learning Environment	.76	53.69	7.43	52.95	7.22
Leadership Style	.81	50.25	6.89	50.54	6.61
Risk Taking	.86	50.18	8.57	50.53	8.24
Team Orientation	.79	49.46	5.21	49.90	5.34

Limitations

Throughout this document we have tried to clearly outline the methodology and results of the creation of the *SuperStrong*. The methodology of the creation of the *SuperStrong* is unique and produces results

users should be confident in. However, as with any research, there are limitations and future research directions.

Item Selection

One limitation of this study are the items selected for use. Items that are currently included in the *SuperStrong* were selected to maximize prediction of the General Occupational Themes. The extension of our research into the prediction of BISs, OSs, and PSSs may be hindered by this approach. Future studies should seek to better balance the selection of items to increase predication of scales beyond the GOTs such as Team Orientation on the PSSs.

Reuse of Items

A second potential limitation of this research is the reliance upon a smaller set of reused items. The *Strong Interest Inventory* includes 291 items. The *SuperStrong* includes a subset of 60, a reduction of 79% of the items. The *SuperStrong* accounts for this by regression weights weighting system to approximate the results of completing the entire *Strong*. In some instances, the estimates were slightly higher for the *SuperStrong* possibly due to the reuse of items and the reliance upon different weights rather than different items. In general, these differences are minor. However, particularly with the Occupational Scales, the end users of the assessment should recognize that there is likely to be a small degree of imprecision in the results. Understanding that some results may differ slightly from the Strong, it's important to realize the purpose of the *SuperStrong* and *Strong assessments,* which is to provide direction towards possible interests. These measures are not intended to measure the amount of talent or aptitude, nor do they specify the exact job users should seek. Rather, users should review the results and use them as a starting point for exploration. The use of a weighted regression-based scoring approach also limits some classical test theory approaches such as factor analysis and internal consistency reliabilities, since all items are used for all scales. Furthermore, a small number of items are used to calculate a large number of scales. Consistent with any shortened assessment, the shorter the assessment, the greater importance of each item.

Missing Items

Our current scoring algorithm requires the completion of all 60 items. Future studies should evaluate how to allow for a certain number of missing items and their results upon overall prediction. It is possible that mean replacement or other missing value techniques may allow for a small number of items to be missed with minimal impact.

Administrative Indexes

The most recent revision of the *Strong Interest Inventory* includes several administrative indexes to aide interpretation. We did not include these administrative indexes in the *SuperStrong*. Future research should evaluate a mechanism to include these into the assessment to better serve counseling needs.

"Dust Bowl" Empiricism

Methodologies for the creation of the *SuperStrong* relied heavily upon archival research. Our goal was to use the large data sets we had available to maximize prediction. At times this focus on prediction ignored theoretical and statistical parsimony. For example, items in some algorithms had very small contributions to the overall prediction. Traditional methodologies would have suggested a model that

removed these items. In this circumstance, we sided on the parsimony of a single generic scoring mechanism and maximum prediction. It is possible that more simple statistical models could be used with small to no predictive penalty with the understood trade-off of more complex scoring mechanisms.

Gendered Scoring

Similar, to our "Dust Bowl" empiricism critique, we simplified prediction of Occupational Scales by creating an average Occupational Scale score. Although there are some occupational differences found between men and women, we found a high degree of overlap between both scores. Given the intended use of the Occupational Scales, we felt the average correlation of .83 still provided good prediction and suggestions for users. Future studies may examine this issue further and may suggest the removal of OSs with lower levels of prediction.

Future Directions

As noted above, several different research studies have been suggested. These include re-evaluating the items that were selected for use, examining different methods of missing items, including Administrative Indexes, and exploring gendered scoring of the OSs. However, at its core, it is our belief that one of the biggest steps forward will come through replication the results of the *Strong* and *SuperStrong* results as well as test-retest information. Given the large sample sizes used in this study, we expect these results to replicate well. We would like to conduct a simple experiment examining the user feedback on the accuracy of their results. Finally, consistent with other research on the Strong (Schaubhut & Thompson, 2014), future research should evaluate the effectiveness of the Strong in the LGBT community.

Conclusion

By leveraging large archival datasets, we created the *SuperStrong*. The *SuperStrong* uses a unique scoring mechanism designed to maximize prediction. This document outlined the creation process and the psychometric qualities of those predictions. The research on the *SuperStrong* shows robust relationships with the *Strong Interest Inventory*, indicating minimal costs to prediction associated with a considerable decrease in assessment time. These results included relationships with the *Strong* scales but also test-retest data, correlations between scales, and theoretical ties with things such as GOTs and BISs; BISs and OSs. Across the board, the results were positive, strong, and in the anticipated direction. Taken as a whole, although there are areas for improvement, our research indicates that the *SuperStrong* will be predictive of interests and provide value for those who use it.

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Errata

Date	Fixed In	Description
May, 2016	1.2	Table 29 footer improperly referenced the Strong Manual rather than the Full Strong Sample.
May, 2016	1.2	Table 29 Conventional column duplicated Realistic column. Data was updated to the appropriate values.