WORK PERSONALITY INDEX 2.0 REVISED

Psychometrics

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AN UPDATED WORK PERSONALITY INDEX

INTRODUCTION

The Work Personality Index 2nd Edition Revised (WPI2-R) is essentially a short-form of the Work Personality Index 2nd Edition (WPI2), which has been available for more than 20 years. While the current form of the assessment is not obsolete or outdated, the WPI2-R improves the quality of the assessment, as well as the experience for both test takers and administrators.

Statistical analysis of the original 198 items and scale results indicated that the number of items could be reduced to 113 while maintaining the reliability and validity of the original assessment. The psychometric properties of the WPI2-R, as well as how the revised version of the Work Personality Index compares to the original version can be found throughout this document.

HOW DOES THE UPDATED ASSESSMENT COMPARE TO THE ORIGINAL VERSION?

When updating any assessment, it is important to establish that the new version of the assessment is measuring the same constructs as the previous version. The extent to which one can generalize the established validity and interpretive guidelines from the WPI2 to the WPI2-R hinges on the relationship between the two forms.

The following considerations were examined to establish that the updated version of the assessment is measuring the same constructs, and is comparable to, the WPI2.

- The revised assessment uses items and scales that are found in the original version of the assessment. It does not add any new items or scales. This provides the foundation for the two versions of the assessments being comparable.

- The two versions of the assessment strongly correlate with each other. To confirm this, we calculated the correlations for each scale with their respective counterparts in the original assessment. Scale correlations range from 0.87 to 0.98, with an average correlation of 0.92. This indicates a very strong relationship between the two forms of the assessment. These correlations can be found in Appendix H.

THE RESEARCH THAT GUIDED THE UPDATE

In order to determine which items could be removed from the original WPI2, we gathered a research sample consisting of $113,755$ individuals. In order to run the analyses outlined below, we used the Raw Scores for the 113 item "Revised" version of the assessment. Keep in mind that each scale contains a different number of items, therefore the minimum and maximum Raw Score will vary from scale to scale.

- The descriptive statistics for each scale can be found in Appendix A. There are no cross-loaded items on any of the personality scales. The Sales Potential and Leadership Potential scales are calculated using a subset of the items from the personality scales, though this does not imply cross-loading in a statistical sense.

- One important factor of any assessment is that it is reliable. In order words, does the assessment measure the personality trait consistently. To measure a form of reliability called Internal Consistency, we used two different measures. The traditional measure is known as Cronbach's Alpha, while a newer measure named McDonald's Omega exists as a modern alternative. We chose to include both measures for each scale. These reliability coefficients can be found in Appendix B.

- We examined how well each trait is being measured by the revised model. In other words, we were interested in learning if each scale could stand in isolation, without the rest of the assessment. To explore this possibility, we used Confirmatory Factor Analysis to analyze each scale. The results can be found in Appendix C. We did not include Exploratory Factor Analysis, as we already have a proposed model of personality, therefore confirming this structure is more valuable than exploring to see what is possible.

- Using the research sample, we examined the correlation between the 113-item form of the assessment, and the original 198-item model. The results of these analyses can be found in Appendix D.

Ultimately, we applied this research to the current normative group of the WPI2, in order to maintain greater consistency between the two versions of the assessment.

PSYCHOMETRIC PROPERTIES OF THE WPI2-R

For the analysis of the psychometric properties, we applied the 113-item model to the original normative group (n = 8360). Similar to the results above, the minimum and maximum score for each scale will be different in the analyses to follow (due to having a varying number of items for each scale). However, the scores found in the report use a standardized Sten score. Any interpretation found in the report are based off of these Sten scores, creating equality between the scores and allowing them to be compared.

- The descriptive statistics for each scale can be found in Appendix E. There are, again, no cross-loaded items on any of the WPI-2R personality scales. The Sales Potential and Leadership Potential scales are calculated using a subset of the items from the personality scales, though this does not imply cross-loading in a statistical sense.

- Internal Consistency results were measured using both Cronbach's Alpha and McDonald's Omega, similar to the methods used with the research sample. These reliability coefficients can be found in Appendix F.

- The Confirmatory Factor Analysis results can be found in Appendix G. Much like with the research sample, we did not include Exploratory Factor Analysis, as we are working with an existing model of personality, and we are interested in how well this 113-item questionnaire measures the constructs of interest.

- Using the research sample, we examined the correlation between the 113-item form of the assessment, and the original 198-item model. The results of these analyses can be found in Appendix H.

- Finally, we examined the Interscale Correlations. This table can be found in Appendix I.

ADVERSE IMPACT RESEARCH

During the collection phase for the research sample, respondents were able to voluntarily provide demographic information. The collection of demographic information was optional based on the modern criteria for data collection and data privacy, as well as the larger concerns regarding these areas. Anyone who provided demographic information did so of their own choice. There was no incentive for doing so.

As a result, 8995 individuals provided demographic information. This data was used to conduct Adverse Impact analyses to determine if the assessment was treating any groups unfairly.

DEMOGRAPHICS

The following demographic information was asked of each individual.
- Gender
- Ethnicity
- Education Level
- Job Level (e.g., Individual Contributor, Supervisor, Manager, Director or Executive)
- Geographic Location

Charts containing each demographic distribution can be found in Appendix J.

ANALYSES OF ADVERSE IMPACT

Using the collected data, we looked to see if there are any meaningful differences between groups. Out of the collected demographics, we examined gender, ethnicity, educational level and job level for group differences. Some notable exceptions:

- Due to small sample sizes, we were not able to examine group differences for those respondents who are Transgendered or identify with a non-binary gender.

- We did not have representative samples for any country outside of Canada, therefore Geographic Location was excluded from the analyses.

The Means and Standard Deviations for each group can be found in Appendices K through N. Additionally, the significance comparisons can be found in Appendices O through R.

Overall, we have found that there aren't any meaningful (or unexpected) differences between groups.

- <u>Gender:</u> Cohen's d (measure of effect size) did not reach the "medium" category for any of the scales, so all of the group differences are either small or not significant. For the largest group differences: When considering standardized scores (such as Sten scores), the differences between the groups is less than 1 standard deviation (for either group or pooled standard deviation). This suggests that there isn't a meaningful difference based on the standard deviation of Sten scales. In addition, for scales with the largest differences, the group averages fall into the same interpretation categories. As a result, they would be treated the same on a practical level.

- <u>Ethnicity:</u> Partial Eta Squared (measure of effect size) did not reach the "medium" category for any of the scales, so all of the group differences are either small or not significant. The largest group differences were still extremely small. As a result, the group averages fall into the same interpretation categories and no group difference was considered meaningful.

- <u>Education:</u> Partial Eta Squared (measure of effect size) did not reach the "medium" category for most of the scales. The only significant difference can be found in the Leadership Potential scale, where those with higher education (such as a Master's or a Doctorate) tend to score higher in this scale. This result is unsurprising, as higher education often grooms individuals for positions with more responsibility. Additionally, many individuals pursue graduate studies after working for some time to be able to achieve higher positions within their career.

- <u>Job Level:</u> Partial Eta Squared (measure of effect size) did not reach the "medium" category for most of the scales, except for the Leadership Potential scale. Individuals at the higher levels of an organization (Executives or Directors) scored higher in Leadership Potential. This difference indicates that the scale is working as intended, as the scale measures one's fit for a leadership role, and leaders are scoring higher as a result.

APPENDIX A – MEAN AND STANDARD DEVIATIONS (RESEARCH SAMPLE)

Scale	Number of Items	Mean Raw Score	Standard Deviation
Ambition	6	23.53	3.41
Analytical Thinking	4	16.14	2.42
Attention to Detail	5	20.35	2.86
Concern for Others	5	20.72	2.81
Democratic	6	17.83	3.16
Dependability	4	15.62	2.91
Energy	5	20.04	2.95
Flexibility	6	15.92	3.16
Initiative	5	20.82	2.51
Innovation	4	15.88	2.59
Leadership	4	15.41	2.57
Multi-Tasking	4	11.29	3.28
Outgoing	5	17.17	3.04
Persistence	8	33.23	4.23
Persuasion	4	14.16	3.37
Planning	5	19.94	3.04
Rule-Following	4	15.09	3.15
Self-Control	7	28.04	4.45
Social Confidence	7	27.92	4.69
Stress Tolerance	5	19.47	3.60
Teamwork	5	19.01	2.87
Profile Validity	5	15.32	4.05
Sales Potential	25	98.34	12.71
Leadership Potential	36	132.60	12.42

APPENDIX B – INTERNAL CONSISTENCY MEASURES (RELIABILITY)

Scale	Cronbach's Alpha	McDonald's Omega
Ambition	0.79	0.87
Analytical Thinking	0.79	0.83
Attention to Detail	0.79	0.80
Concern for Others	0.76	0.81
Democratic	0.59	0.67
Dependability	0.80	0.82
Energy	0.78	0.83
Flexibility	0.65	0.73
Initiative	0.75	0.78
Innovation	0.81	0.83
Leadership	0.80	0.83
Multi-Tasking	0.82	0.86
Outgoing	0.71	0.77
Persistence	0.83	0.86
Persuasion	0.84	0.87
Planning	0.79	0.84
Rule-Following	0.82	0.82
Self-Control	0.82	0.84
Social Confidence	0.88	0.91
Stress Tolerance	0.84	0.86
Teamwork	0.74	0.76
Profile Validity	0.75	0.79
Sales Potential	0.93	0.94
Leadership Potential	0.89	0.91

Higher scores mean greater reliability. Any scale with either an Alpha or Omega above 0.7 is considered to have "good" reliability.

APPENDIX C – CONFIRMATORY FACTOR ANALYSIS

Scale	CFI	TLI	RMSEA	SRMR
Ambition	0.964	0.940	0.083	0.038
Analytical Thinking	0.937	0.812	0.196	0.056
Attention to Detail	0.990	0.979	0.051	0.016
Concern for Others	0.896	0.791	0.157	0.058
Democratic	0.748	0.581	0.127	0.071
Dependability	0.986	0.958	0.094	0.023
Energy	0.933	0.866	0.146	0.063
Flexibility	0.736	0.560	0.155	0.081
Initiative	0.957	0.915	0.093	0.034
Innovation	0.982	0.947	0.106	0.025
Leadership	0.967	0.902	0.140	0.033
Multi-Tasking	0.943	0.829	0.203	0.047
Outgoing	0.945	0.890	0.101	0.042
Persistence	0.904	0.866	0.108	0.048
Persuasion	0.984	0.953	0.124	0.026
Planning	0.859	0.717	0.209	0.077
Rule-Following	1.000	0.999	0.017	0.004
Self-Control	0.967	0.950	0.068	0.029
Social Confidence	0.961	0.941	0.095	0.034
Stress Tolerance	0.962	0.923	0.118	0.035
Teamwork	0.993	0.986	0.038	0.014
Profile Validity	0.960	0.920	0.092	0.036
Sales Potential	0.696	0.668	0.113	0.079
Leadership Potential	0.535	0.507	0.104	0.104

When is a model considered independently structurally sound?

- CFI: Either greater than 0.95 or greater than 0.9 if SRMR is less than 0.08.
- TLI: Either greater than 0.95 or greater than 0.9 if SRMR is less than 0.08.
- RMSEA: Below 0.08. (Note: This is considered a stringent and conservative measure of model fit.)

APPENDIX D – SCALE CORRELATION WITH THE ORIGINAL ASSESSMENT (RESEARCH SAMPLE)

Scale	Correlation
Ambition	0.92
Analytical Thinking	0.90
Attention to Detail	0.93
Concern for Others	0.92
Democratic	0.87
Dependability	0.92
Energy	0.89
Flexibility	0.90
Initiative	0.90
Innovation	0.89
Leadership	0.89
Multi-Tasking	0.89
Outgoing	0.91
Persistence	0.98
Persuasion	0.90
Planning	0.89
Rule-Following	0.94
Self-Control	0.96
Social Confidence	0.98
Stress Tolerance	0.94
Teamwork	0.93
Profile Validity	0.97
Sales Potential	0.97
Leadership Potential	0.97

APPENDIX E – MEAN AND STANDARD DEVIATIONS FOR THE WPI2-R

Scale	Number of Items	Mean Raw Score	Standard Deviation
Ambition	6	22.15	4.05
Analytical Thinking	4	15.30	2.93
Attention to Detail	5	17.68	3.85
Concern for Others	5	19.81	3.43
Democratic	6	18.43	3.57
Dependability	4	13.50	3.22
Energy	5	17.53	3.43
Flexibility	6	17.87	3.77
Initiative	5	19.14	3.01
Innovation	4	14.67	3.11
Leadership	4	14.50	3.03
Multi-Tasking	4	11.31	3.46
Outgoing	5	14.93	3.57
Persistence	8	29.15	5.20
Persuasion	4	11.63	3.79
Planning	5	17.70	3.65
Rule-Following	4	11.70	3.30
Self-Control	7	23.50	4.97
Social Confidence	7	24.51	5.71
Stress Tolerance	5	16.28	3.89
Teamwork	5	16.27	3.48
Sales Potential	25	87.31	14.38
Leadership Potential	36	121.84	13.09

APPENDIX F — INTERNAL CONSISTENCY MEASURES (RELIABILITY) FOR THE WPI2-R

Scale	Cronbach's Alpha	McDonald's Omega
Ambition	0.81	0.88
Analytical Thinking	0.81	0.86
Attention to Detail	0.82	0.84
Concern for Others	0.83	0.86
Democratic	0.68	0.75
Dependability	0.77	0.80
Energy	0.76	0.83
Flexibility	0.74	0.85
Initiative	0.76	0.80
Innovation	0.83	0.85
Leadership	0.81	0.84
Multi-Tasking	0.85	0.87
Outgoing	0.76	0.82
Persistence	0.84	0.88
Persuasion	0.86	0.88
Planning	0.81	0.87
Rule-Following	0.80	0.81
Self-Control	0.81	0.85
Social Confidence	0.89	0.93
Stress Tolerance	0.80	0.85
Teamwork	0.77	0.80
Sales Potential	0.92	0.94
Leadership Potential	0.88	0.91

Higher scores mean greater reliability. Any scale with either an Alpha or Omega above 0.7 is considered to have "good" reliability.

APPENDIX G – CONFIRMATORY FACTOR ANALYSIS FOR THE WPI2-R

Scale	CFI	TLI	RMSEA	SRMR
Ambition	0.943	0.904	0.117	0.054
Analytical Thinking	0.897	0.692	0.271	0.073
Attention to Detail	0.976	0.951	0.091	0.027
Concern for Others	0.951	0.902	0.131	0.041
Democratic	0.808	0.681	0.137	0.071
Dependability	0.986	0.957	0.088	0.024
Energy	0.911	0.823	0.170	0.081
Flexibility	0.784	0.640	0.172	0.083
Initiative	0.940	0.880	0.118	0.042
Innovation	0.988	0.965	0.093	0.019
Leadership	0.966	0.897	0.151	0.035
Multi-Tasking	0.973	0.919	0.150	0.030
Outgoing	0.932	0.863	0.135	0.053
Persistence	0.831	0.763	0.157	0.069
Persuasion	0.989	0.968	0.103	0.017
Planning	0.811	0.621	0.259	0.090
Rule-Following	1.000	1.000	0.003	0.003
Self-Control	0.904	0.856	0.114	0.053
Social Confidence	0.924	0.887	0.141	0.048
Stress Tolerance	0.914	0.828	0.160	0.055
Teamwork	0.974	0.948	0.083	0.027
Sales Potential	0.590	0.553	0.136	0.102
Leadership Potential	0.419	0.383	0.124	0.126

When is a model considered independently structurally sound?
- CFI: Either greater than 0.95 or greater than 0.9 if SRMR is less than 0.08.
- TLI: Either greater than 0.95 or greater than 0.9 if SRMR is less than 0.08.
- RMSEA: Below 0.08. (Note: This is considered a stringent and conservative measure of model fit.)

APPENDIX H – SCALE CORRELATION WITH THE ORIGINAL ASSESSMENT (WPI2-R)

Scale	Correlation
Ambition	0.95
Analytical Thinking	0.89
Attention to Detail	0.95
Concern for Others	0.94
Democratic	0.89
Dependability	0.92
Energy	0.93
Flexibility	0.94
Initiative	0.92
Innovation	0.93
Leadership	0.92
Multi-Tasking	0.91
Outgoing	0.89
Persistence	0.99
Persuasion	0.86
Planning	0.91
Rule-Following	0.94
Self-Control	0.97
Social Confidence	0.99
Stress Tolerance	0.94
Teamwork	0.95
Sales Potential	0.97
Leadership Potential	0.97

APPENDIX I – INTERSCALE CORRELATIONS (WPI2-R)

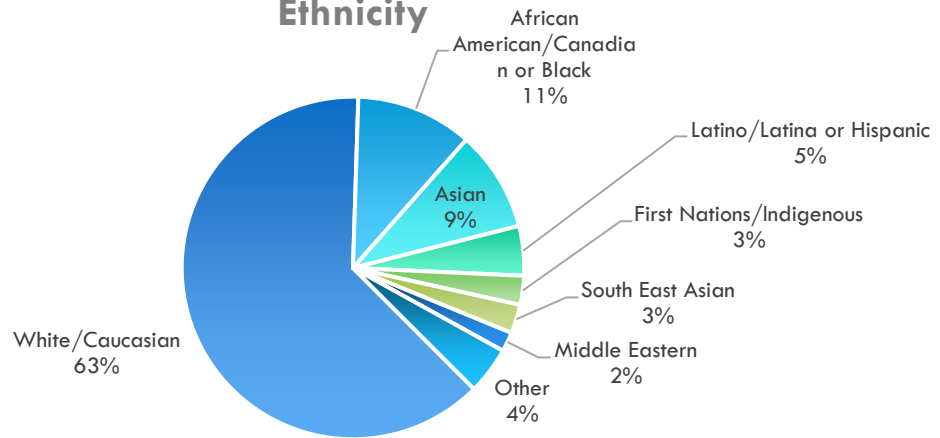|	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21
01 - Ambition	-	0.40	0.31	0.10	-0.11	0.29	0.45	0.01	0.56	0.35	0.50	0.07	0.11	0.48	0.30	0.43	0.07	0.10	0.28	0.24	0.18
02 - Analytical Thinking		-	0.29	0.13	-0.06	0.05	0.16	0.08	0.31	0.42	0.28	0.00	-0.09	0.20	0.13	0.27	-0.09	0.12	0.09	0.16	0.03
03 - Attention to Detail			-	0.02	0.02	0.32	0.09	-0.42	0.15	0.02	0.14	-0.20	-0.13	0.38	0.04	0.49	0.38	0.08	-0.02	0.07	-0.02
04 - Concern for Others				-	0.11	0.08	0.14	0.07	0.23	0.18	0.08	0.06	0.23	0.12	0.01	0.05	-0.01	0.23	0.23	0.06	0.26
05 - Democratic					-	-0.22	-0.24	-0.17	-0.22	-0.23	-0.36	-0.23	-0.01	-0.25	-0.15	0.07	0.03	-0.22	-0.25	-0.38	0.10
06 - Dependability						-	0.32	-0.22	0.29	0.06	0.24	0.04	0.10	0.77	0.06	0.28	0.38	0.27	0.17	0.30	0.08
07 - Energy							-	0.14	0.62	0.35	0.51	0.33	0.43	0.46	0.36	0.13	0.07	0.30	0.50	0.49	0.39
08 - Flexibility								-	0.19	0.34	0.12	0.36	0.16	-0.16	0.05	-0.40	-0.48	0.03	0.16	0.11	0.07
09 - Initiative									-	0.45	0.62	0.30	0.32	0.47	0.30	0.22	0.04	0.27	0.47	0.41	0.35
10 - Innovation										-	0.40	0.19	0.15	0.18	0.29	0.07	-0.15	0.18	0.32	0.27	0.17
11 - Leadership											-	0.21	0.28	0.41	0.41	0.23	0.00	0.15	0.47	0.37	0.26
12 - Multi-Tasking												-	0.25	0.07	0.06	-0.23	-0.08	0.14	0.20	0.31	0.15
13 - Outgoing													-	0.16	0.28	-0.04	0.03	0.22	0.58	0.25	0.72
14 - Persistence														-	0.17	0.34	0.34	0.34	0.28	0.40	0.18
15 - Persuasion															-	0.14	-0.02	0.11	0.40	0.24	0.28
16 - Planning																-	0.29	0.04	0.06	0.04	0.10
17 - Rule-Following																	-	0.17	0.00	0.12	0.08
18 - Self-Control																		-	0.28	0.68	0.28
19 - Social Confidence																			-	0.38	0.43
20 - Stress Tolerance																				-	0.27
21 - Teamwork																					-

Gender

Other
0.41%

Transgender
0.09%

Male
50.42%

Female
49.08%

Ethnicity

African American/Canadian or Black
11%

Latino/Latina or Hispanic
5%

Asian
9%

First Nations/Indigenous
3%

South East Asian
3%

Middle Eastern
2%

White/Caucasian
63%

Other
4%

Education

Masters
14%

Professional Degree
3%

Doctorate
1%

Bachelor's
34%

High School
16%

Associate Degree
18%

College or Trade
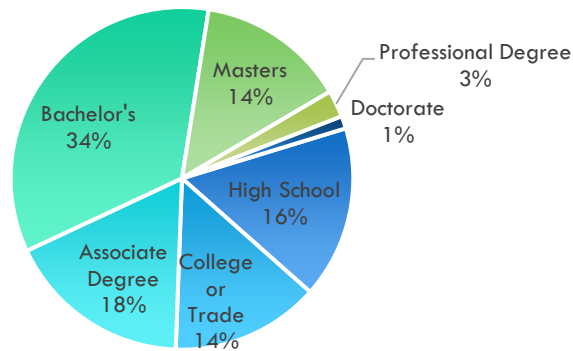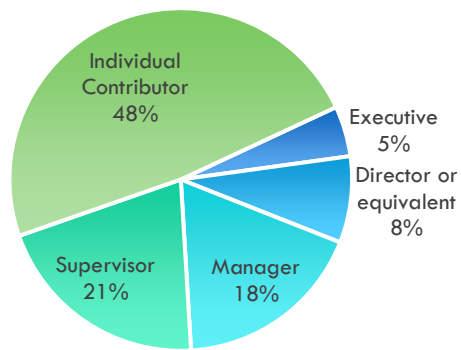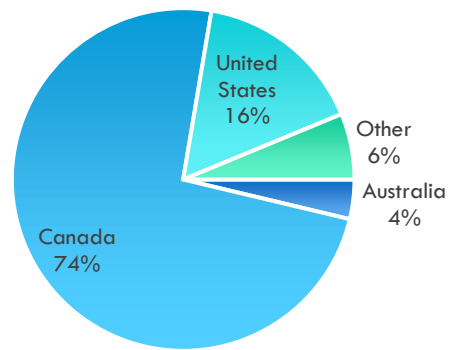14%
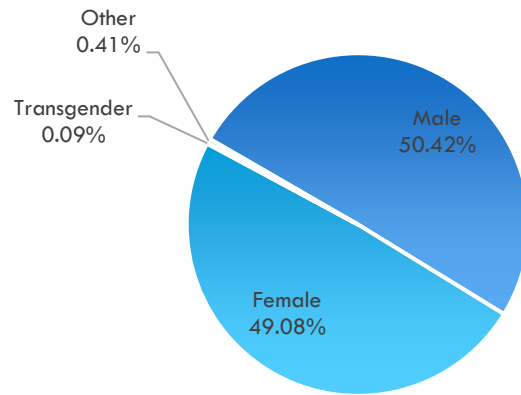
Job Level

Geographical Location

Note regarding Geographic Location: The "Other" category consisted of 71 different countries, with sample sizes too small to represent properly in the chart.

APPENDIX K – MEANS AND STANDARD DEVIATIONS FOR GENDER

Due to small sample sizes, we were not able to examine group differences for those respondents who are Transgendered or identify with a non-binary gender.

	Male		Female	
	M	**SD**	**M**	**SD**
Ambition	24.03	3.32	23.20	3.45
Analytical Thinking	16.54	2.23	15.95	2.52
Attention to Detail	20.34	2.96	19.77	3.14
Concern for Others	20.61	2.78	21.59	2.60
Democratic	17.66	3.12	18.24	3.30
Dependability	15.42	3.12	15.33	2.99
Energy	20.13	3.05	19.59	3.20
Flexibility	16.14	3.26	16.55	3.25
Initiative	21.06	2.48	21.03	2.48
Innovation	16.27	2.46	15.70	2.77
Leadership	15.99	2.42	15.43	2.65
Multi-Tasking	11.43	3.35	12.09	3.24
Outgoing	14.88	2.54	14.48	2.68
Persistence	33.71	4.37	32.91	4.53
Persuasion	14.11	3.34	13.06	3.56
Planning	20.04	3.02	19.55	3.07
Rule-Following	15.31	3.40	14.54	3.13
Self-Control	28.61	4.45	27.07	4.77
Social Confidence	28.53	4.52	27.40	5.04
Stress Tolerance	20.13	3.58	18.37	3.98
Teamwork	15.07	2.46	14.55	2.61
Profile Validity	14.35	4.05	14.01	3.74
Sales Potential	99.82	12.48	96.52	13.48
Leadership Potential	125.00	11.17	123.96	12.68

APPENDIX L – MEANS AND STANDARD DEVIATIONS FOR ETHINICITY

Ethnicity Legend: WH = White/Caucasian, BL = African American/Canadian or Black, AS = Asian, LA = Latino/Latina or Hispanic, FN = First Nations/Indigenous, SEA = South East Asian, ME = Middle Eastern

	WH		BL		AS		LA		FN		SEA		ME		Other	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Ambition	23.44	3.31	24.81	3.30	24.07	3.14	24.82	3.13	23.51	3.04	24.50	3.28	24.40	3.23	23.87	3.12
Analytical Thinking	16.15	2.38	16.80	2.26	16.83	2.21	16.78	2.13	16.13	2.24	17.32	2.20	16.94	2.14	16.26	2.30
Attention to Detail	19.83	3.06	21.31	2.62	20.95	2.85	20.84	2.77	19.97	2.71	21.10	2.75	21.05	2.84	20.20	2.99
Concern for Others	21.22	2.65	20.93	2.73	20.73	2.76	21.02	2.76	21.24	2.66	21.20	2.54	20.73	2.97	20.60	2.77
Democratic	18.14	3.10	16.86	3.13	17.99	3.18	17.26	2.83	18.08	3.22	17.28	3.77	18.13	3.30	17.87	3.12
Dependability	15.25	3.02	16.40	2.84	15.96	2.88	16.32	2.93	14.94	3.20	16.01	3.13	16.09	2.65	15.29	2.86
Energy	19.91	2.98	21.02	2.78	20.21	3.14	20.91	2.82	20.09	3.07	20.67	3.03	20.91	3.04	19.84	2.95
Flexibility	16.55	3.23	14.68	3.09	15.75	2.88	15.61	3.11	15.76	2.87	15.85	2.63	15.99	2.82	16.19	2.88
Initiative	21.07	2.31	21.49	2.45	21.34	2.51	21.79	2.33	20.96	2.33	21.66	2.46	21.31	2.70	20.95	2.30
Innovation	15.92	2.59	16.66	2.34	16.20	2.67	16.61	2.24	15.81	2.47	16.51	2.52	16.81	2.56	16.23	2.20
Leadership	15.60	2.45	16.11	2.45	16.00	2.46	16.45	2.33	15.45	2.30	16.44	2.47	16.52	2.47	15.71	2.35
Multi-Tasking	11.96	3.21	11.31	3.31	11.26	3.40	11.40	3.23	11.36	3.30	11.28	3.52	11.70	2.91	11.13	3.23
Outgoing	14.68	2.52	14.96	2.39	15.14	2.57	15.50	2.21	14.69	2.52	15.23	2.42	15.26	2.34	14.75	2.74
Persistence	33.36	4.31	34.92	4.08	33.58	4.08	34.73	3.88	33.01	4.53	33.71	4.30	33.74	4.30	33.13	4.17
Persuasion	13.44	3.36	14.74	3.01	13.94	3.41	14.24	3.38	13.49	3.17	14.67	3.66	14.05	3.54	14.13	3.32
Planning	19.38	2.89	21.35	2.79	21.23	2.70	20.81	2.83	20.00	2.64	21.11	2.91	21.26	2.77	20.26	2.93
Rule-Following	14.91	3.32	16.81	2.69	15.28	3.01	16.19	3.18	15.61	3.28	15.90	2.97	15.47	3.15	14.90	3.24
Self-Control	27.87	4.51	29.91	4.12	28.23	4.29	29.44	4.20	27.95	4.52	28.61	4.82	28.85	4.57	27.47	4.68
Social Confidence	27.98	4.73	29.49	4.14	28.12	4.58	29.78	4.04	27.80	4.86	28.61	4.31	29.29	4.51	28.18	4.43
Stress Tolerance	19.24	3.73	21.07	3.40	19.78	3.59	20.77	3.40	19.53	3.74	20.35	3.83	20.07	3.45	19.30	3.65
Teamwork	14.70	2.44	15.36	2.36	15.60	2.52	15.50	2.15	14.92	2.19	15.65	2.39	15.67	2.50	14.96	2.48
Profile Validity	13.76	3.66	15.34	4.34	15.94	3.85	14.94	4.02	13.75	3.79	15.51	4.05	15.96	3.99	14.57	4.00
Sales Potential	98.00	12.19	102.86	12.08	99.61	13.00	103.16	11.82	97.80	12.39	102.05	13.21	102.09	12.30	98.81	12.15
Leadership Potential	124.79	11.84	124.22	9.70	123.71	11.34	126.19	9.76	122.44	11.94	125.24	10.89	126.31	10.50	124.55	10.84

APPENDIX M – MEANS AND STANDARD DEVIATIONS FOR EDUCATION LEVEL

	High School		College or Trade		Associate Degree		Bachelor's		Masters		Professional Degree		Doctorate	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Ambition	23.88	3.41	23.67	2.99	23.54	3.37	23.69	3.39	24.05	3.22	23.84	3.11	23.76	3.18
Analytical Thinking	16.15	2.42	15.97	2.23	16.10	2.36	16.57	2.32	16.66	2.32	16.27	2.28	16.57	2.09
Attention to Detail	20.74	2.67	20.81	2.49	20.38	2.89	19.98	3.11	19.53	3.36	19.82	3.05	19.09	3.07
Concern for Others	20.78	2.91	20.60	2.61	21.26	2.71	21.22	2.66	21.31	2.50	21.17	2.45	20.82	3.30
Democratic	17.70	3.17	17.76	2.88	17.68	3.02	18.14	3.26	17.91	3.13	17.71	2.93	17.99	2.79
Dependability	15.66	3.02	15.94	2.76	15.61	3.01	15.35	3.02	15.33	3.08	15.46	3.08	15.30	2.61
Energy	20.48	3.00	20.73	2.60	20.18	2.95	19.73	3.15	20.09	2.92	20.07	2.84	19.56	3.10
Flexibility	14.84	2.88	15.13	2.61	15.85	3.04	16.69	3.18	17.62	3.21	17.17	3.16	18.09	3.16
Initiative	21.07	2.53	21.07	2.20	21.16	2.34	21.15	2.42	21.50	2.25	21.06	2.32	20.76	2.32
Innovation	16.02	2.51	16.24	2.17	16.11	2.44	15.98	2.69	16.38	2.56	15.97	2.62	16.44	2.40
Leadership	15.47	2.59	15.35	2.28	15.79	2.48	15.83	2.46	16.24	2.38	16.04	2.38	15.52	2.48
Multi-Tasking	10.92	3.09	10.77	2.95	11.69	3.17	12.04	3.31	12.58	3.28	12.08	3.28	13.00	3.15
Outgoing	14.56	2.49	14.70	2.15	14.82	2.50	14.76	2.59	15.22	2.52	14.89	2.75	15.15	2.57
Persistence	33.78	4.59	34.37	3.77	33.78	4.33	33.16	4.30	33.43	4.12	33.95	4.15	33.31	4.20
Persuasion	14.15	3.17	13.59	2.96	13.98	3.31	13.47	3.55	13.63	3.47	13.71	3.47	12.38	3.62
Planning	20.44	2.81	20.25	2.61	19.86	2.94	19.80	3.06	19.72	3.08	19.48	3.04	18.99	3.39
Rule-Following	16.25	3.01	16.71	2.84	15.67	3.08	14.57	3.27	14.27	3.15	14.60	3.28	13.45	3.30
Self-Control	28.50	4.77	29.07	4.10	28.63	4.36	27.79	4.59	27.69	4.39	27.75	4.17	28.12	4.51
Social Confidence	28.14	4.95	28.43	4.16	28.50	4.63	27.97	4.76	28.64	4.20	28.75	4.50	27.76	5.07
Stress Tolerance	19.86	3.85	20.28	3.40	19.82	3.64	19.18	3.83	19.43	3.65	19.47	3.23	19.39	3.51
Teamwork	14.92	2.49	15.06	2.16	14.96	2.39	14.89	2.50	15.07	2.51	14.65	2.79	14.73	2.72
Profile Validity	14.98	4.09	15.19	3.86	14.50	3.83	13.87	3.85	13.84	3.71	13.98	3.49	13.89	3.70
Sales Potential	99.31	13.10	99.18	10.62	99.60	12.25	98.16	13.01	100.09	11.83	99.62	12.42	95.99	13.25
Leadership Potential	121.23	10.62	121.45	9.14	124.05	11.03	125.61	11.93	129.16	11.34	127.28	11.98	128.45	12.12

	Executive		Director or equivalent		Manager		Supervisor		Individual Contributor	
	M	SD	M	SD	M	SD	M	SD	M	SD
Ambition	24.55	3.09	24.02	3.20	24.01	3.31	23.76	3.34	23.57	3.29
Analytical Thinking	16.43	2.44	16.28	2.40	16.47	2.34	16.29	2.36	16.33	2.32
Attention to Detail	18.65	3.70	19.00	3.40	19.98	2.96	20.40	2.90	20.55	2.80
Concern for Others	21.05	2.83	21.42	2.48	21.25	2.66	20.84	2.81	21.04	2.69
Democratic	17.66	3.17	17.64	3.25	17.41	3.04	17.69	3.04	18.15	3.13
Dependability	15.18	3.25	15.22	2.98	15.24	3.13	15.59	3.03	15.68	2.89
Energy	20.45	2.84	20.37	2.65	20.03	2.91	20.34	2.99	20.03	3.06
Flexibility	18.21	3.30	18.34	3.43	16.77	3.13	15.75	2.98	15.60	2.97
Initiative	21.66	2.29	21.77	2.00	21.40	2.25	21.30	2.35	20.92	2.44
Innovation	16.71	2.50	16.52	2.34	16.20	2.61	16.18	2.52	15.91	2.53
Leadership	16.89	2.13	16.88	1.98	16.41	2.19	16.05	2.23	15.14	2.55
Multi-Tasking	13.25	3.26	13.20	3.25	12.35	3.25	11.50	3.20	11.21	3.16
Outgoing	14.97	2.73	15.32	2.56	14.96	2.52	14.89	2.43	14.62	2.48
Persistence	33.29	4.32	33.64	4.14	33.58	4.18	33.52	4.30	33.71	4.26
Persuasion	14.69	3.26	14.35	3.43	14.09	3.48	13.88	3.33	13.35	3.29
Planning	19.27	3.15	19.29	3.14	19.79	2.92	20.14	2.94	20.11	2.90
Rule-Following	13.58	3.46	13.88	3.32	14.87	3.10	15.50	3.19	15.74	3.16
Self-Control	27.35	4.74	27.80	4.58	28.02	4.46	28.34	4.45	28.41	4.45
Social Confidence	28.71	4.50	29.02	4.33	28.48	4.59	28.27	4.68	28.06	4.63
Stress Tolerance	19.64	3.54	19.62	3.60	19.60	3.60	19.83	3.64	19.55	3.79
Teamwork	14.87	2.63	15.08	2.55	14.88	2.44	15.07	2.41	14.90	2.43
Profile Validity	13.30	3.93	13.33	3.54	13.61	3.74	14.56	3.97	14.72	3.89
Sales Potential	102.38	11.60	102.40	10.74	100.42	12.05	99.85	12.27	97.50	12.61
Leadership Potential	133.00	11.99	132.61	10.53	127.42	10.86	124.37	10.33	121.75	10.90

APPENDIX O – GROUP DIFFERENCE ANALYSES FOR GENDER

Due to small sample sizes, we were not able to examine group differences for those respondents who are Transgendered or identify with a non-binary gender.

Scale	Cohen's d
Ambition	0.243
Analytical Thinking	0.246
Attention to Detail	0.185
Concern for Others	0.365
Democratic	0.181
Dependability	0.028
Energy	0.171
Flexibility	0.125
Initiative	0.010
Innovation	0.220
Leadership	0.223
Multi-Tasking	0.199
Outgoing	0.154
Persistence	0.178
Persuasion	0.303
Planning	0.162
Rule-Following	0.236
Self-Control	0.335
Social Confidence	0.237
Stress Tolerance	0.464
Teamwork	0.206
Profile Validity	0.088
Sales Potential	0.254
Leadership Potential	0.087

Cohen's d Interpretation Thresholds:
- 0.2 = Small effect size (Acceptable)
- 0.5 = Medium effect size (Not ideal, investigate further)
- 0.8 = Large effect size (Problematic)

APPENDIX P – GROUP DIFFERENCE ANALYSES FOR ETHNICITY

Scale	Partial Eta Squared
Ambition	0.001
Analytical Thinking	0.002
Attention to Detail	0.004
Concern for Others	0.005
Democratic	0.005
Dependability	0.003
Energy	0.002
Flexibility	0.008
Initiative	0.005
Innovation	0.001
Leadership	0.004
Multi-Tasking	0.005
Outgoing	0.004
Persistence	0.011
Persuasion	0.003
Planning	0.017
Rule-Following	0.001
Self-Control	0.007
Social Confidence	0.004
Stress Tolerance	0.005
Teamwork	0.006
Profile Validity	0.009
Sales Potential	0.015
Leadership Potential	0.016

Partial Eta Squared Interpretation Thresholds:
- 0.01 = Small effect size (Acceptable)
- 0.06 = Medium effect size (Not ideal, investigate further)
- 0.14 = Large effect size (Problematic)

APPENDIX Q – GROUP DIFFERENCE ANALYSES FOR EDUCATION LEVEL

Scale	Partial Eta Squared
Ambition	0.001
Analytical Thinking	0.022
Attention to Detail	0.004
Concern for Others	0.004
Democratic	0.004
Dependability	0.007
Energy	0.011
Flexibility	0.030
Initiative	0.002
Innovation	0.003
Leadership	0.009
Multi-Tasking	0.013
Outgoing	0.009
Persistence	0.005
Persuasion	0.011
Planning	0.007
Rule-Following	0.020
Self-Control	0.006
Social Confidence	0.007
Stress Tolerance	0.003
Teamwork	0.003
Profile Validity	0.003
Sales Potential	0.011
Leadership Potential	0.069

Partial Eta Squared Interpretation Thresholds:
- 0.01 = Small effect size (Acceptable)
- 0.06 = Medium effect size (Not ideal, investigate further)
- 0.14 = Large effect size (Problematic)

APPENDIX R – GROUP DIFFERENCE ANALYSES FOR JOB LEVEL

Scale	Partial Eta Squared
Ambition	0.001
Analytical Thinking	0.002
Attention to Detail	0.015
Concern for Others	0.002
Democratic	0.004
Dependability	0.003
Energy	0.004
Flexibility	0.016
Initiative	0.002
Innovation	0.002
Leadership	0.046
Multi-Tasking	0.010
Outgoing	0.004
Persistence	0.004
Persuasion	0.006
Planning	0.003
Rule-Following	0.007
Self-Control	0.003
Social Confidence	0.003
Stress Tolerance	0.005
Teamwork	0.004
Profile Validity	0.005
Sales Potential	0.028
Leadership Potential	0.125

Partial Eta Squared Interpretation Thresholds:
- 0.01 = Small effect size (Acceptable)
- 0.06 = Medium effect size (Not ideal, investigate further)
- 0.14 = Large effect size (Problematic)