The VSQ US Standard Group «US2013»

What is a Standard Group?

A standard group is used as an indication of how a population will typically score on one of the scales of the VSQ. The indication is a range of typical scores. jobEQ uses this range on its feedback reports in order to give a relative indication of where a person scores in comparison to others. The standard group can be any group, such as a team of sales people, all employees of a certain organization, or the population of a country. In this case the standard group represents the working population of the United States.

Once we know how a group typically scores, we can determine, in relative terms, whether a person's score is lower than, the same as, or higher than that of a particular population.

A VSQ standard group is calculated by taking the means of a sample of a group, adding one standard deviation to these means to find the upper limit of the standard group and subtracting one standard deviation from the mean to find the lower limit. If we presuppose that the population is approximately normally distributed, we know by definition that approximately two-thirds of the population will fall within the standard group range for the scale. In addition, we can assume that 1 out of 6 individuals will score higher than the standard group and 1 out of 6 will score lower.

Purpose of a Standard Group?

Standard groups are not intended to add statistical validity. Rather, standard groups help people understand the test results by showing how individuals compare to a given population or group. We use a standard group in VSQ reports to generate visual charts and/or textual explanations of a person's scores as those in the standard group would experience them.

Purpose of this paper

This paper will explain how the VSQ Standard Group 2013 of the United States is constructed. First the used sample is documented with essential demographics like gender, age and occupation. Furthermore, the descriptive statistics of the value systems and social pattern variables and their difference with the previous standard group and the world standard group is explained.

About the sample

The 2013 Standard Group is based on 992 persons working in the United States, who completed the VSQ questionnaire between December 2001 and February 2013.

Filter

A test criteria filter was used: people who left more than 7 items of 30 unchanged in the questionnaire were not used because of reliability reasons: the test administration of people who leave more 20% of the items unchanged is considered as not valid.

Gender

Concerning gender, the sample represents closely the working population in the US. The sample has a 47/53 male-female ratio whereas the US working population has a 54/46 ratio[1]. Both sexes are well represented showing a slight over-representation of women in comparison to the working population.

Table 1: Comparison of VSQ Standard Group 2013 and working population

VSQ Standard Group 2013 US	n	%	Working population	%
Male	465	46.9	Male	53.5
Female	527	53.1	Female	46.5
Total	992	100.0	Total	100.0

Age

The average age is 47.6 years old (SD=12.5). Table 2 shows the distribution in age categories. Approximately 8% of the respondents are Young Professionals, more than a quarter of the standard group (28%) is in their Mid-Career while 40% (i.e. 39%) of the sample is in their Late Career. Seniors represent almost 16% of the norm group. Only a small fraction (0.4%) of the respondents is under 21 years old. More than 7% has no age indication.

Table 2: age categories

VSQ Standard Group 2013 US	n	%
Youth	4	0.40
Young Professional 21-30 years	82	8.27
Mid-Career 31-44 years	281	28.33
Late Career 45-60 years	397	40.02
Senior > 60 years	155	15.63
Unknown	73	7.36
Total	992	100.00

If we compare age categories with de data obtained from the US working population (4% under 19 years old, 31% between 20-34, 23% between 35-44, 24% between 45-54 and 18% above 54), we can conclude that all age categories (with the exception of the under 19 years old category) are well represented.

[1] 2007 US employment data obtained from http://www.bls.gov/cps/home.htm

Occupation

Table 3 shows the distribution of the occupation categories. As one can see the occupations of the respondents are quite varied ranging from less than 1% ('Homemaker', 'Retired' and 'Tradesman/craftsman') to 10% ('Consulting'). Two categories ('Not specified' and 'Other') account for more than 19% each indicating that their profession is unknown or other than the categories mentioned. Note that these 'unknown' categories and the category 'Consulting' are somewhat over-represented; to assure that this would not affect the representation of the US working people, a post-hoc analysis was conducted comparing the means of the sample with and without these categories. These results did not reveal any differences in average scores of the VSQ variables.

Table 3: occupation categories

VSQ Standard Group 2013 US	n	Percentage
[NOT SPECIFIED]	103	10.38%
Accounting/Finance	48	4.84%
Computer related (Internet)	13	1.31%
Computer related (other)	53	5.34%
Consulting	101	10.18%
Customer service/support	25	2.52%
Education/training	73	7.36%
Engineering	28	2.82%
Executive/senior management	59	5.95%
General administrative/supervisory	36	3.63%
Government/Military	15	1.51%
Homemaker	8	0.81%
Manufacturing/production/operations	13	1.31%
Other	82	8.27%
Professional (medical, legal, etc.)	72	7.26%
Research and development	14	1.41%
Retired	4	0.40%
Sales/marketing/advertising	56	5.65%
Self-employed/owner	73	7.36%
Student	77	7.76%
Tradesman/craftsman	4	0.40%
Unemployed/Between Jobs	35	3.53%
Grand Total	992	100.00%

Value Systems and Social Pattern Variables

Table 4 represents the absolute averages, standard deviations and standard errors of each parameter. Also the absolute difference with the previous US Standard Group (2005) and the World Standard Group (2013) is given. All parameters show a sufficient variation in scores (standard deviations ranging from 11% to 21%). The standard error of the parameters varies from 0.36% to 0.65% with an average 0.48%. When .95 confidence intervals (i.e. mean $\pm$ 1.96 SEM) are constructed around the sample means, one can conclude that in 95% of the

cases the mean will fall within a margin less than 0.50% implicating that the estimation of the population means for the 18 variables using the standard group (n=992) is very accurate.

The differences in means with the previous standard group range from 0% up to 5%. In comparison to the previous standard group the value system Obedience makes a downwards shift resulting in an absolute difference of 5% (small effect size .47), Particularism shows an upward shift reflecting a 5% difference (small effect size .31). Another significant downward discrepancy (4%) is found in the value system Survival, (small effect size .24).

If we compare the US Standard Group to the World Standard Group, the following differences are found: the respondents of the US sample show a higher average score for Survival and a lower average score on Match (6% and 5% absolute difference), resulting in small significant effect sizes (.36 and .32). This means that the differences between the averages of the two groups are substantial: both parameters reflect discrepancies in averages that have a size of 1/3 standard deviation. In other words, the US sample scores more than 1/3 standard deviation higher than the average of the world sample regarding to Survival, on the other hand they score 1/3 standard deviation less on Match .

Table 4: descriptive statistics and differences with VSQ US2005 and World2013

	Pattern	Average	SD	SEM	Difference with US2005	Difference with World2013
G1	Survival	51.38%	15.17%	0.48%	- 4%	+ 6%
G2	Safety	30.23%	12.28%	0.39%	0%	0%
G3	Use of Power	24.19%	13.53%	0.43%	0%	- 1%
G4	Obedience	37.30%	11.48%	0.36%	- 5%	- 2%
G5	Success	55.35%	14.02%	0.45%	+ 1%	- 1%
G6	Friends & Harmony	59.19%	14.02%	0.45%	0%	+ 2%
G7	Functional & Systemic Thinking	61.80%	12.87%	0.41%	+ 1%	- 1%
G8	Global Village	75.07%	11.84%	0.38%	+ 2%	- 1%
D1	Specific boundaries	56.31%	17.74%	0.56%	- 2%	0%
D2	Diffuse boundaries	49.65%	14.39%	0.46%	+ 1%	+ 1%
LB	Left Brain	62.68%	18.96%	0.60%	- 2%	0%
RB	Right Brain	60.33%	16.77%	0.53%	+ 1%	+ 1%
M1	Match	35.81%	15.60%	0.50%	0%	- 5%
M2	Mismatch	37.30%	15.72%	0.50%	+ 1%	0%
U1	Universalism	44.73%	18.58%	0.59%	- 2%	- 2%
U2	Particularism	59.55%	15.42%	0.49%	+ 5%	+ 2%
NM	Efficiency	19.51%	20.55%	0.65%	0%	- 1%
FLEX	Flexibility	57.98%	14.81%	0.47%	- 1%	+ 1%

Conclusion

A representative standard group for the US was created successfully, consisting out of 992 respondents. Socio-economic variables like gender, age and occupations were taken into account and are well represented with a slight over-representation of women.

Looking at the descriptive statistics of the VSQ, we can report two important conclusions. First, we can state that the VSQ scales can measure quite accurately: all standard error measures are below 0.50%. Second, the scales show enough variation in scores (standard deviations up to 21%) to apprehend the heterogeneity of the standard group.

A comparison to the previous standard group of 2005, reveals two major shifts. The first important finding is a downward trend of the blue value system Obedience, indicating that the US respondents nowadays find order and discipline less important than they did a small decade ago. The second major finding is an upward trend of Particularism, suggesting that US people prefer to accept several perceptions of reality and are less bound to formal rules than they did in 2005. Another finding is that respondents of the 2013 sample are less focused on survival and basic needs.

In comparison with the World Standard Group 2013, two substantial differences are found. The results on the beige value system Survival indicate that US people are more focused on the basic necessities to survive, showing less attention to other people. In other words, despite they are less focused on survival in comparison to the 2005 sample, the current US sample is still more focused on survival needs than the average of the world population. The lower results on Match implicate that US respondents tend to look less for patterns, similarities and correlations suggesting that they are less willing to avoid conflict.