

CPI 260 US Workforce Norms

A normative sample of 5,000 working adults was drawn from the several thousand workers who completed the California Personality Inventory 260 (CPI 260) from April 2002 through March 2007. The sample was stratified to reflect the relevant demographic and occupational characteristics of the US workforce based on the 2006 Department of Labor (DOL) Bureau of Labor Statistics Current Population Survey (CPS; available online: <http://www.bls.gov/cps/home.htm>).

Norm Development

Every working adult who completed the US English version of CPI 260 since April 2002 was eligible for inclusion in the normative sample. Because this sample was intended to represent the US workforce, only incumbent cases were included in the normative sample. Cases that demonstrated invalid responding, excessive missing data, faking good, and/or faking bad were excluded from the normative sample.

In order to provide a close approximation of the actual US workforce, cases were selected to represent the 22 DOL occupational categories. Cases were selected randomly within each DOL category and with two exceptions: (a) cases providing all demographic data were preferred when sufficient cases were available and (b) cases were selected to reflect ethnic compositions of the US workforce. The result is a stratified normative sample of 5,000 working adults that closely approximates the occupational and ethnic characteristics of the US workforce.

Demographic Information

The average age of the working adults in the sample was 41.1 with a standard deviation of 10.4 years. Table 1 displays the demographic composition of the CPI 260 sample as compared to the US workforce. As demonstrated in this table, the sample provides a close approximation of the demographic composition of the US workforce. Caucasians, however, are moderately underrepresented in the normative sample. It is worth noting that the sum of US workforce percentages (provided by the CPS) is greater than 100. According to the CPS, individuals classified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as race. Consequently, some individuals in the CPS may be classified as both Caucasian and Hispanic; inflating the estimated numbers of both ethnic groups. When the estimates are calculated into percentages from the total number of working adults in the US workforce, the inflated estimates cause the sum of the percentages to exceed 100. Because of the large number of Caucasians in the US workforce, the decision was made to maintain the percentages of each minority ethnic group. Maintaining a reasonable number of subgroup members will facilitate future adverse impact estimations based on this sample.

Table 1. Demographic Composition of CPI 260 Norm Sample and US Workforce

Demographic Group	US Workforce		Norm Sample		
	Total*	Percent	<i>n</i>	Percent	DIF
<i>Gender</i>					
Males	77502	53.7%	2753	55.1%	1.4%
Females	66925	46.3%	2135	42.7%	-3.6%
<i>Ethnicity</i>					
Caucasian	118833	82.3%	3331	66.6%	-15.7%
African American	15765	10.9%	600	12.0%	1.1%
Asian	6522	4.5%	291	5.8%	1.3%
Hispanic	19613	13.6%	521	10.4%	-3.2%

Note. *in thousands; DIF = percent in norm sample – percent in US workforce; percents do not always sum to totals because data are not present for all ethnic groups. For instance, the sum of the norm sample percents equals 94.8%, the remaining 5.2% either did not provide ethnic group membership or were from an ethnic group other than those presented in this table. In addition, persons whose ethnicity is identified as Hispanic or Latino in the US Workforce estimates may be of any race and, therefore, are classified by ethnicity as well as race. For instance, respondents on the CPS may classify themselves as both Hispanic and Caucasian. This inflates the estimated numbers of both ethnic groups. Consequently, when the estimates are calculated into percentages from the total number of working adults in the US workforce, the resulting sum of the percentages are greater than 100.

Occupational Characteristics

Table 2 displays the occupational characteristics of the CPI 260 sample as compared to the US workforce. As demonstrated in the table, the normative sample represents each of the 22 US Department of Labor Occupational Categories and provides a close approximation of the occupational characteristics of the US workforce.

Table 2. Occupational Characteristics of CPI 260 Norm Sample and US Workforce

Occupation	US Workforce		Norm Sample		DIF
	Total*	Percent	<i>n</i>	Percent	
Management	15249	10.6%	605	12.1%	1.5%
Business & Financial Operations	5983	4.1%	230	4.6%	0.5%
Computer & Mathematical	3209	2.2%	112	2.2%	0.0%
Architecture & Engineering	2830	2.0%	115	2.3%	0.3%
Life, Physical, & Social Sciences	1434	1.0%	100	2.0%	1.0%
Community & Social Services	2156	1.5%	100	2.0%	0.5%
Legal	1637	1.1%	100	2.0%	0.9%
Education, Training, & Library	8126	5.6%	315	6.3%	0.7%
Art, Design, Entertainment, Sports, & Media	2735	1.9%	110	2.2%	0.3%
Healthcare Practitioner & Technical	7060	4.9%	275	5.5%	0.6%
Healthcare Support	3132	2.2%	49	1.0%	-1.2%
Protective Services	2939	2.0%	125	2.5%	0.5%
Food Preparation & Serving Related	7606	5.3%	179	3.6%	-1.7%
Building & Grounds Cleaning & Maintenance	5381	3.7%	54	1.1%	-2.6%
Personal Care & Service	4754	3.3%	66	1.3%	-2.0%
Sales & Related	16641	11.5%	640	12.8%	1.3%
Office & Administrative Support	19500	13.5%	750	15.0%	1.5%
Farming, Fishing, & Forestry	961	0.7%	29	0.6%	-0.1%
Construction & Extraction	9507	6.6%	232	4.6%	-1.9%
Installation, Maintenance, & Repair	5362	3.7%	206	4.1%	0.4%
Production	9378	6.5%	365	7.3%	0.8%
Transportation & Materials Moving	8846	6.1%	243	4.9%	-1.3%

Note. *in thousands; DIF = percent in norm sample – percent in US workforce.

Means, Variance, and Percentiles

The CPI 260 alphas, means, standard deviations, skewness and kurtosis statistics for the entire normative sample are presented in Table 3. The CPI 260 means and standard deviations by gender and for each ethnic subgroup are presented in Tables 4 and 5, respectively. Table 6 demonstrates the raw scores and corresponding percentiles for each CPI 260 scale.

Table 3. CPI 260 Alphas, Means, Standard Deviations, Skewness and Kurtosis Statistics for Total Sample (N = 5000)

	α	M	SD	Skewness	Kurtosis
Do	.85	23.12	5.50	-0.83	0.30
Cs	.69	16.10	3.83	-0.35	-0.16
Sy	.75	15.99	3.86	-0.73	0.09
Sp	.58	18.92	3.45	-0.25	-0.21
Sa	.67	15.36	3.32	-0.69	0.27
In	.70	15.96	3.26	-0.94	0.91
Em	.54	15.09	3.30	-0.18	-0.20
Re	.59	17.50	2.89	-0.68	0.46
So	.58	22.11	3.20	-0.66	0.47
Sc	.73	16.91	4.46	-0.30	-0.25
Gi	.69	15.79	4.01	-0.30	-0.26
Cm	.28	19.70	1.51	-0.79	0.87
Wb	.69	16.96	2.61	-1.28	2.00
To	.71	14.43	3.27	-0.71	0.21
Ac	.61	22.36	3.30	-0.74	0.71
Ai	.67	17.60	3.42	-0.40	0.00
Cf	.69	21.78	3.81	-0.62	0.48
Is	.47	14.72	2.63	-0.58	0.41
Fx	.72	10.14	3.86	0.15	-0.41
Sn	.57	11.85	3.44	0.07	-0.25
V1	.78	8.60	3.96	0.19	-0.48
V2	.59	13.95	2.95	-0.38	-0.18
V3	.80	19.86	5.18	-0.47	-0.12
Mp	.72	18.15	3.72	-0.65	0.17
Wo	.57	18.10	2.66	-0.90	1.14
Ct	.70	16.64	4.16	-0.06	-0.34
Lp	.83	29.16	5.09	-1.11	1.11
Ami	.72	20.19	4.02	-0.70	0.33
Leo	.40	19.68	2.98	-0.30	0.00

Note. Cases that demonstrated invalid responses, excessive missing data, faking good, and/or faking bad were not included in the normative sample.

Table 4. CPI 260 Means and Standard Deviations by Gender

	Male N = 2753		Female N = 2135	
	M	SD	M	SD
Do	23.77	5.22	22.20	5.74
Cs	16.17	3.73	15.97	3.95
Sy	15.88	3.85	16.09	3.87
Sp	19.21	3.34	18.53	3.57
Sa	15.64	3.18	14.96	3.47
In	16.50	2.95	15.24	3.50
Em	15.05	3.30	15.15	3.30
Re	17.39	2.97	17.64	2.79
So	22.01	3.26	22.25	3.13
Sc	16.59	4.50	17.31	4.38
Gi	15.54	4.03	16.07	3.95
Cm	19.68	1.53	19.73	1.49
Wb	17.17	2.53	16.67	2.70
To	14.33	3.26	14.56	3.29
Ac	22.26	3.40	22.44	3.15
Ai	17.61	3.35	17.59	3.50
Cf	22.06	3.70	21.40	3.94
Is	14.90	2.58	14.50	2.70
Fx	9.99	3.89	10.33	3.80
Sn	10.35	3.07	13.82	2.85
V1	8.12	3.84	9.25	4.01
V2	14.00	2.94	13.89	2.95
V3	19.73	5.15	20.02	5.23
Mp	18.44	3.57	17.74	3.90
Wo	18.24	2.68	17.90	2.63
Ct	16.79	4.08	16.45	4.26
Lp	29.68	4.82	28.43	5.38
Ami	20.08	4.04	20.34	4.00
Leo	20.12	2.91	19.07	2.95

Note. Cases that demonstrated invalid responses, excessive missing data, faking good, and/or faking bad were not included in the normative sample.

Table 5. CPI 260 Means and Standard Deviations by Ethnic Group

	Caucasian N = 3331		African American N = 600		Asian N = 291		Hispanic N = 521	
	M	SD	M	SD	M	SD	M	SD
Do	23.18	5.70	23.46	4.70	21.55	5.57	23.26	4.98
Cs	16.20	3.87	16.09	3.50	14.91	4.00	16.35	3.69
Sy	15.88	4.01	16.70	3.21	15.07	3.82	16.32	3.61
Sp	19.09	3.54	18.58	3.07	18.03	3.21	18.93	3.35
Sa	15.38	3.41	15.48	2.94	14.31	3.38	15.58	3.12
In	16.05	3.33	15.77	2.83	15.30	3.35	16.04	3.08
Em	15.25	3.33	14.89	3.09	14.21	3.38	15.18	3.26
Re	17.64	2.91	17.62	2.57	16.75	2.80	17.33	2.84
So	22.14	3.22	22.27	2.96	21.71	3.33	22.23	3.19
Sc	16.79	4.47	17.66	4.27	17.07	4.13	17.02	4.59
Gi	15.62	3.99	16.51	3.88	15.80	3.87	16.17	4.07
Cm	19.82	1.46	19.75	1.44	19.11	1.79	19.43	1.54
Wb	17.17	2.53	16.81	2.41	15.54	3.12	16.88	2.55
To	14.85	3.03	13.64	3.45	12.47	3.72	14.20	3.46
Ac	22.23	3.29	23.35	2.87	21.89	3.30	22.60	3.34
Ai	17.91	3.30	17.14	3.33	16.02	4.16	17.53	3.43
Cf	21.99	3.83	21.49	3.50	20.49	4.03	21.77	3.79
Is	14.93	2.55	14.36	2.59	13.76	2.69	14.71	2.85
Fx	10.38	3.83	9.92	3.74	9.10	4.10	9.94	3.85
Sn	11.56	3.51	12.72	3.04	12.80	3.40	12.23	3.34
V1	8.51	4.05	8.93	3.56	9.40	3.92	8.43	3.82
V2	13.82	2.93	14.40	2.95	14.51	2.93	14.03	3.01
V3	20.42	4.90	18.97	5.29	17.11	6.00	19.61	5.33
Mp	18.48	3.66	17.56	3.64	16.73	3.83	17.91	3.73
Wo	18.24	2.56	18.06	2.53	17.17	3.28	18.07	2.72
Ct	16.80	4.21	16.43	3.84	15.44	4.35	16.82	4.04
Lp	29.22	5.18	29.69	4.40	27.33	5.45	29.37	4.71
Ami	20.47	3.95	19.67	3.96	19.23	4.27	20.03	4.02
Leo	19.72	3.02	20.03	2.84	18.66	2.70	19.53	2.87

Note. Cases that demonstrated invalid responses, excessive missing data, faking good, and/or faking bad were not included in the normative sample.

Table 6. CPI 260 Percentiles Cont'd.

Raw Score	Ai %-tile	Cf %-tile	Is %-tile	Fx %-tile	Sn %-tile	V1 %-tile	V2 %-tile	V3 %-tile	Mp %-tile	Wo %-tile	Ct %-tile	Lp %-tile	Ami %-tile	Leo %-tile
0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
2	0	0	0	1	0	6	0	0	0	0	0	0	0	0
3	0	0	0	4	0	10	0	0	0	0	0	0	0	0
4	0	0	0	7	1	17	0	0	0	0	0	0	0	0
5	0	0	0	12	3	24	0	1	0	0	0	0	0	0
6	0	0	0	19	6	32	1	1	0	0	1	0	0	0
7	0	0	1	27	11	41	2	2	1	0	1	0	0	0
8	1	0	2	35	17	50	5	2	1	0	2	0	1	0
9	2	0	4	44	25	60	8	4	2	1	5	0	1	0
10	3	1	7	55	36	68	13	5	3	1	8	0	2	0
11	5	1	12	64	47	76	20	7	5	2	11	1	3	1
12	8	2	19	73	58	83	30	9	8	4	17	1	5	1
13	12	3	29	80	68	88	42	12	12	6	23	1	7	3
14	18	4	42	86	77	92	54	16	17	10	31	1	9	5
15	26	6	59	91	85	95	68	20	23	16	40	2	13	9
16	35	10	74	95	91	97	79	25	30	24	49	3	18	14
17	46	13	87	97	95	99	89	30	39	35	58	3	23	22
18	57	18	95	98	97	100	96	37	49	50	66	4	30	33
19	70	25	98	99	99	100	99	43	59	67	74	5	38	46
20	79	33	100	100	99	100	100	50	70	83	81	7	47	59
21	88	43	100	100	100			58	80	93	87	9	58	72
22	93	53	100	100	100			66	89	99	92	11	68	83
23	97	65			100			74	96	100	95	14	78	91
24	100	75			100			81	99		98	17	87	96
25	100	84			100			87	100		99	21	94	99
26		91			100			91			100	25	98	100
27		96			100			95			100	30	100	100
28		98			100			98			100	37	100	100
29		100						99			100	43		100
30		100						100				51		
31								100				60		
32												69		
33												80		
34												90		
35												97		
36												100		