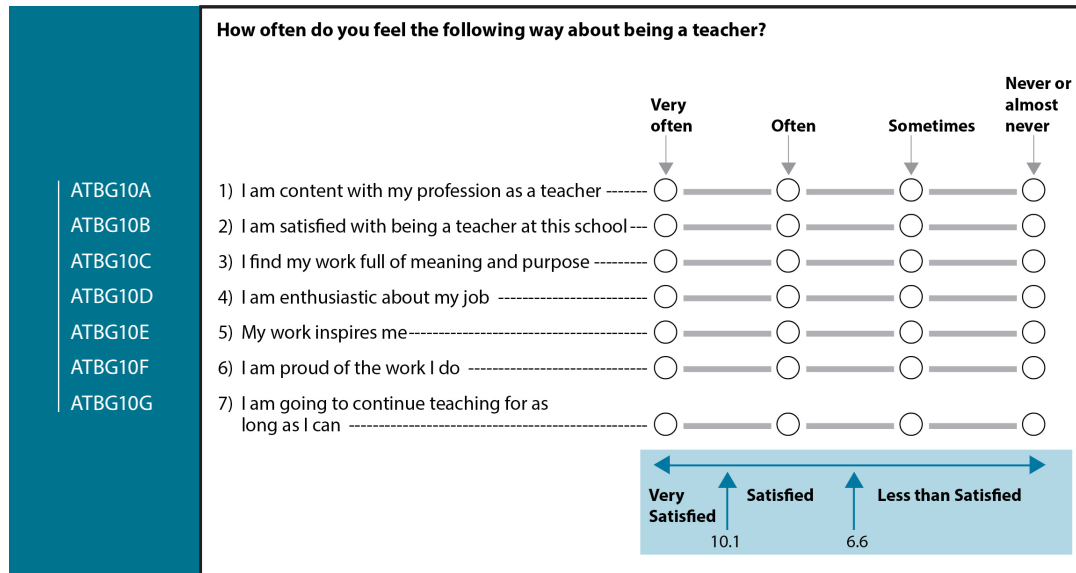


Teacher Job Satisfaction Scale, Fourth Grade

The Teacher Job Satisfaction (TJS) scale was created based on how often teachers responded positively to the seven statements described below.

Items in the TIMSS 2015 Teacher Job Satisfaction Scale, Fourth Grade¹



¹ For the purpose of scaling, categories in which there were very few respondents were combined. The categories “Sometimes” and “Never or almost never” were combined for all variables. The scale statistics that are reported herein reflect analysis of the items following collapsing.

Item Parameters for the TIMSS 2015 Teacher Job Satisfaction Scale, Fourth Grade

Item	delta	tau_1	tau_2	Infit
ATBG10A	0.18167	-1.87034	1.87034	0.92
ATBG10B	0.10394	-1.66322	1.66322	1.28
ATBG10C	-0.65803	-1.81035	1.81035	0.97
ATBG10D	-0.08795	-1.84973	1.84973	0.79
ATBG10E	0.26732	-1.76637	1.76637	0.84
ATBG10F	-0.20476	-1.60751	1.60751	1.00
ATBG10G	0.39781	-1.29161	1.29161	1.19

Scale Transformation Constants for the TIMSS 2015 Teacher Job Satisfaction Scale, Fourth Grade

Scale Transformation Constants	
A = 8.377535	Transformed Scale Score = 8.377535 + 0.905788 • Logit Scale Score
B = 0.905788	

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015

**Equivalence Table of Raw and Transformed Scale Scores for the TIMSS
2015 Teacher Job Satisfaction Scale, Fourth Grade**

Raw Score	Transformed Scale Score	Cutpoint
0	4.30095	
1	5.44546	
2	6.07197	
3	6.56411	6.6
4	7.00941	
5	7.44953	
6	7.91110	
7	8.39763	
8	8.88012	
9	9.32868	
10	9.75567	
11	10.18696	10.1
12	10.66453	
13	11.27347	
14	12.40375	

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015



Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the TIMSS 2015 Teacher Job Satisfaction Scale, Fourth Grade

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Component Loadings for Each Item						
			ATBG10A	ATBG10B	ATBG10C	ATBG10D	ATBG10E	ATBG10F	ATBG10G
Australia	0.91	65	0.84	0.70	0.85	0.87	0.88	0.74	0.74
Bahrain	0.90	63	0.84	0.73	0.71	0.87	0.86	0.77	0.76
Belgium (Flemish)	0.90	63	0.80	0.65	0.75	0.89	0.85	0.84	0.74
Bulgaria	0.89	61	0.73	0.74	0.76	0.86	0.81	0.84	0.69
Canada	0.90	63	0.83	0.70	0.78	0.88	0.85	0.79	0.73
Chile	0.87	58	0.70	0.65	0.66	0.81	0.87	0.85	0.76
Chinese Taipei	0.94	75	0.89	0.79	0.89	0.91	0.88	0.92	0.80
Croatia	0.91	65	0.82	0.72	0.74	0.87	0.87	0.86	0.76
Cyprus	0.91	66	0.82	0.60	0.86	0.87	0.89	0.81	0.80
Czech Republic	0.91	66	0.80	0.65	0.86	0.89	0.89	0.80	0.77
Denmark	0.92	67	0.87	0.78	0.76	0.88	0.86	0.76	0.80
England	0.93	73	0.85	0.76	0.85	0.91	0.92	0.86	0.80
Finland	0.93	69	0.86	0.73	0.79	0.89	0.87	0.85	0.83
France	0.88	58	0.78	0.59	0.66	0.88	0.87	0.78	0.75
Georgia	0.85	54	0.69	0.67	0.58	0.79	0.77	0.82	0.79
Germany	0.87	58	0.77	0.61	0.77	0.86	0.83	0.74	0.71
Hong Kong SAR	0.93	70	0.86	0.81	0.86	0.86	0.85	0.83	0.77
Hungary	0.89	63	0.78	0.67	0.79	0.88	0.86	0.77	0.80
Indonesia	0.87	58	0.74	0.81	0.84	0.82	0.78	0.67	0.66
Iran, Islamic Rep. of	0.82	51	0.73	0.59	0.74	0.80	0.76	0.59	0.76
Ireland	0.91	67	0.83	0.63	0.87	0.86	0.87	0.80	0.84
Italy	0.90	62	0.80	0.73	0.74	0.87	0.83	0.83	0.69
Japan	0.92	67	0.84	0.76	0.84	0.83	0.89	0.84	0.73
Jordan	0.91	66	0.83	0.70	0.73	0.87	0.83	0.88	0.83
Kazakhstan	0.89	61	0.69	0.76	0.77	0.78	0.82	0.83	0.79
Korea, Rep. of	0.93	72	0.81	0.71	0.89	0.92	0.93	0.88	0.78
Kuwait	0.92	68	0.83	0.77	0.79	0.89	0.86	0.83	0.81
Lithuania	0.90	63	0.78	0.74	0.75	0.85	0.85	0.79	0.77
Morocco	0.89	62	0.81	0.71	0.76	0.85	0.87	0.79	0.69
Netherlands	0.87	57	0.75	0.65	0.71	0.83	0.87	0.72	0.73
New Zealand	0.92	67	0.83	0.76	0.84	0.88	0.86	0.75	0.81
Northern Ireland	0.92	68	0.88	0.72	0.88	0.87	0.87	0.75	0.78
Norway (5)	0.92	67	0.82	0.73	0.81	0.87	0.86	0.82	0.82
Oman	0.85	55	0.79	0.67	0.62	0.85	0.81	0.76	0.65
Poland	0.91	66	0.85	0.73	0.82	0.86	0.84	0.83	0.73
Portugal	0.86	54	0.77	0.63	0.71	0.85	0.78	0.69	0.70
Qatar	0.90	64	0.80	0.77	0.78	0.84	0.85	0.80	0.75
Russian Federation	0.89	61	0.86	0.78	0.63	0.84	0.85	0.79	0.68
Saudi Arabia	0.88	60	0.79	0.72	0.71	0.84	0.80	0.81	0.76
Serbia	0.88	59	0.81	0.66	0.70	0.83	0.82	0.78	0.76
Singapore	0.95	79	0.88	0.81	0.89	0.93	0.93	0.91	0.86
Slovak Republic	0.92	68	0.83	0.69	0.84	0.89	0.86	0.85	0.80
Slovenia	0.87	57	0.76	0.67	0.80	0.82	0.74	0.76	0.72
South Africa (5)	0.90	63	0.76	0.75	0.83	0.83	0.83	0.79	0.76
Spain	0.88	60	0.79	0.73	0.80	0.80	0.84	0.76	0.66
Sweden	0.85	55	0.80	0.56	0.69	0.85	0.85	0.69	0.69
Turkey	0.84	53	0.73	0.59	0.65	0.83	0.83	0.75	0.65
United Arab Emirates	0.90	63	0.79	0.74	0.74	0.86	0.84	0.81	0.75
United States	0.92	69	0.83	0.75	0.85	0.91	0.87	0.78	0.82
Benchmarking Participants									
Buenos Aires, Argentina	0.87	57	0.68	0.60	0.77	0.84	0.76	0.82	0.81
Ontario, Canada	0.91	65	0.84	0.70	0.85	0.87	0.86	0.79	0.73
Quebec, Canada	0.90	62	0.81	0.65	0.64	0.90	0.84	0.82	0.80
Norway (4)	0.92	68	0.86	0.66	0.78	0.90	0.88	0.88	0.78
Abu Dhabi, UAE	0.91	65	0.84	0.77	0.81	0.85	0.85	0.83	0.65
Dubai, UAE	0.89	62	0.75	0.78	0.75	0.87	0.82	0.77	0.77
Florida, US	0.91	67	0.78	0.77	0.88	0.85	0.86	0.72	0.84

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015

Relationship Between the TIMSS 2015 Teacher Job Satisfaction Scale, Fourth Grade, and TIMSS 2015 Achievement

Country	Pearson's Correlation with Achievement				Variance in Achievement Accounted for by Difference Between Regions of the Scale (η^2)	
	(r)		(r)		Mathematics	Science
	Mathematics	Science	Mathematics	Science		
Australia	0.04	0.03	0.00	0.00	0.00	0.00
Bahrain	0.10	0.02	0.01	0.00	0.01	0.00
Belgium (Flemish)	0.01	0.02	0.00	0.00	0.00	0.00
Bulgaria	0.05	0.05	0.00	0.00	0.00	0.01
Canada	-0.02	-0.02	0.00	0.00	0.00	0.00
Chile	0.13	0.09	0.02	0.01	0.02	0.01
Chinese Taipei	-0.02	0.03	0.00	0.00	0.00	0.00
Croatia	0.02	0.01	0.00	0.00	0.00	0.00
Cyprus	0.03	0.02	0.00	0.00	0.00	0.00
Czech Republic	0.04	0.05	0.00	0.00	0.00	0.00
Denmark	-0.04	-0.01	0.00	0.00	0.01	0.00
England	0.07	0.04	0.01	0.00	0.00	0.00
Finland	0.01	0.01	0.00	0.00	0.00	0.00
France	0.06	0.06	0.00	0.00	0.01	0.01
Georgia	0.01	0.03	0.00	0.00	0.00	0.00
Germany	0.03	0.02	0.00	0.00	0.00	0.00
Hong Kong SAR	0.06	0.15	0.00	0.02	0.01	0.02
Hungary	0.06	0.03	0.00	0.00	0.02	0.00
Indonesia	0.01	0.04	0.00	0.00	0.00	0.01
Iran, Islamic Rep. of	-0.01	-0.02	0.00	0.00	0.00	0.00
Ireland	0.02	0.05	0.00	0.00	0.00	0.00
Italy	0.00	0.01	0.00	0.00	0.00	0.00
Japan	0.02	0.02	0.00	0.00	0.00	0.00
Jordan	0.10	-	0.01	-	0.01	-
Kazakhstan	0.06	0.05	0.00	0.00	0.00	0.00
Korea, Rep. of	0.05	0.04	0.00	0.00	0.01	0.00
Kuwait	0.04	0.06	0.00	0.00	0.00	0.01
Lithuania	0.03	0.04	0.00	0.00	0.01	0.00
Morocco	0.12	0.07	0.02	0.00	0.01	0.01
Netherlands	-0.04	-0.04	0.00	0.00	0.00	0.00
New Zealand	0.07	0.07	0.00	0.00	0.00	0.00
Northern Ireland	0.04	0.03	0.00	0.00	0.00	0.00
Norway (5)	0.05	0.03	0.00	0.00	0.00	0.00
Oman	0.05	0.03	0.00	0.00	0.00	0.00
Poland	0.02	0.02	0.00	0.00	0.00	0.00
Portugal	0.12	0.10	0.01	0.01	0.01	0.01
Qatar	-0.07	-0.03	0.00	0.00	0.00	0.00
Russian Federation	-0.04	-0.04	0.00	0.00	0.00	0.00
Saudi Arabia	0.10	0.15	0.01	0.02	0.02	0.02
Serbia	0.01	0.01	0.00	0.00	0.00	0.00
Singapore	0.05	0.03	0.00	0.00	0.01	0.01
Slovak Republic	0.06	0.06	0.00	0.00	0.00	0.00
Slovenia	0.01	0.03	0.00	0.00	0.00	0.00
South Africa (5)	0.02	-	0.00	-	0.00	-
Spain	0.09	0.09	0.01	0.01	0.01	0.01
Sweden	0.08	0.10	0.01	0.01	0.01	0.01
Turkey	0.12	0.11	0.01	0.01	0.01	0.01
United Arab Emirates	0.14	0.14	0.02	0.02	0.02	0.01
United States	0.06	0.04	0.00	0.00	0.00	0.00
International Median	0.04	0.03	0.00	0.00	0.00	0.00
Benchmarking Participants						
Buenos Aires, Argentina	0.17	0.19	0.03	0.04	0.03	0.04
Ontario, Canada	-0.01	-0.03	0.00	0.00	0.00	0.00
Quebec, Canada	0.03	0.01	0.00	0.00	0.00	0.00
Norway (4)	0.04	0.07	0.00	0.01	0.00	0.01
Abu Dhabi, UAE	0.20	0.12	0.04	0.02	0.04	0.01
Dubai, UAE	0.07	0.07	0.00	0.01	0.01	0.01
Florida, US	0.17	0.15	0.03	0.02	0.03	0.03

A dash (-) indicates comparable data not available.

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015