Appendix 4D: Summary Statistics and Standard Errors for Proficiency in Science at the Eighth Grade

Summary Statistics and Standard Errors for Proficiency in Overall Science at the Eighth Grade

Country	Sample Size	Overall Science				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Australia	10338	511.987	6.728	0.432	7.160	2.676
Bahrain	4918	465.853	4.308	0.448	4.756	2.181
Botswana (9)	5964	391.801	5.505	2.040	7.545	2.747
Canada	8757	526.172	4.002	0.764	4.767	2.183
Chile	4849	453.969	8.466	1.069	9.534	3.088
Chinese Taipei	5711	569.474	3.731	0.542	4.273	2.067
Egypt	7822	370.777	17.335	1.168	18.503	4.301
England	4814	536.630	14.131	0.389	14.520	3.811
Georgia	4035	443.166	7.808	1.966	9.774	3.126
Hong Kong SAR	4155	545.760	15.258	0.130	15.389	3.923
Hungary	4893	527.260	10.452	0.965	11.417	3.379
Iran, Islamic Rep. of	6130	456.425	14.837	1.239	16.076	4.010
Ireland	4704	530.097	7.245	0.727	7.973	2.824
Israel	5512	506.731	14.900	0.345	15.245	3.905
Italy	4481	498.926	4.880	0.968	5.848	2.418
Japan	4745	570.900	2.987	0.236	3.222	1.795
Jordan	7865	426.164	9.748	1.583	11.332	3.366
Kazakhstan	4887	532.586	19.520	0.240	19.760	4.445
Korea, Rep. of	5309	555.597	4.475	0.404	4.879	2.209
Kuwait	4503	410.741	25.103	1.510	26.612	5.159
Lebanon	3873	398.157	26.410	2.176	28.586	5.347
Lithuania	4347	519.105	7.339	0.372	7.711	2.777
Malaysia	9726	470.822	16.672	0.396	17.068	4.131
Malta	3817	481.361	1.672	0.939	2.610	1.616
Morocco	13035	393.253	4.065	2.288	6.352	2.520
New Zealand	8142	512.681	9.397	0.218	9.615	3.101
Norway (9)	4697	508.826	7.211	0.595	7.806	2.794
Oman	8883	454.560	5.582	1.456	7.038	2.653

Summary Statistics and Standard Errors for Proficiency in Overall Science at the Eighth Grade (Continued)

Country	Sample Size	Overall Science				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Qatar	5403	456.516	8.021	1.224	9.245	3.041
Russian Federation	4780	544.116	17.005	0.722	17.727	4.210
Saudi Arabia	3759	396.420	18.673	1.389	20.062	4.479
Singapore	6116	596.644	9.827	0.290	10.117	3.181
Slovenia	4257	551.112	4.934	0.828	5.762	2.400
South Africa (9)	12514	357.742	30.162	1.593	31.755	5.635
Sweden	4090	522.269	10.848	0.998	11.846	3.442
Thailand	6482	455.845	16.978	0.990	17.967	4.239
Turkey	6079	493.396	15.523	0.625	16.148	4.018
United Arab Emirates	18012	476.646	4.718	0.496	5.213	2.283
United States	10221	529.996	7.545	0.528	8.073	2.841
Benchmarking Participants						
Buenos Aires, Argentina	3253	386.013	16.815	1.154	17.969	4.239
Ontario, Canada	4520	523.872	5.815	0.472	6.288	2.508
Quebec, Canada	3950	529.716	16.871	2.268	19.139	4.375
Norway (8)	4795	489.221	5.277	0.338	5.615	2.370
Abu Dhabi, UAE	4838	454.249	30.475	0.810	31.284	5.593
Dubai, UAE	6149	524.723	3.391	0.586	3.977	1.994
Florida, US	2074	508.280	33.126	2.615	35.741	5.978

Summary Statistics and Standard Errors for Proficiency in Biology at the Eighth Grade

Country	Sample Size	Biology				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Australia	10338	521.730	6.736	1.215	7.951	2.820
Bahrain	4918	468.749	4.789	1.882	6.670	2.583
Botswana (9)	5964	396.583	6.125	2.049	8.173	2.859
Canada	8757	534.272	4.097	1.470	5.568	2.360
Chile	4849	458.873	8.774	4.143	12.917	3.594
Chinese Taipei	5711	565.146	3.891	0.999	4.890	2.211
Egypt	7822	348.336	19.895	5.365	25.259	5.026
England	4814	542.025	14.369	1.598	15.967	3.996
Georgia	4035	446.708	7.853	1.709	9.563	3.092
Hong Kong SAR	4155	548.515	16.112	5.593	21.706	4.659
Hungary	4893	520.756	9.198	1.619	10.817	3.289
Iran, Islamic Rep. of	6130	448.333	13.477	1.315	14.793	3.846
Ireland	4704	534.167	7.099	1.331	8.430	2.903
Israel	5512	504.168	15.126	2.904	18.030	4.246
Italy	4481	495.540	5.377	1.425	6.802	2.608
Japan	4745	570.340	3.593	4.681	8.274	2.877
Jordan	7865	419.589	10.414	4.687	15.101	3.886
Kazakhstan	4887	520.484	21.324	0.211	21.535	4.641
Korea, Rep. of	5309	553.929	4.186	0.733	4.919	2.218
Kuwait	4503	401.813	32.176	2.053	34.229	5.851
Lebanon	3873	365.964	30.187	8.209	38.396	6.196
Lithuania	4347	520.981	8.524	1.097	9.622	3.102
Malaysia	9726	466.110	18.330	0.637	18.967	4.355
Malta	3817	472.755	2.262	4.969	7.231	2.689
Morocco	13035	379.543	4.263	2.133	6.397	2.529
New Zealand	8142	519.558	10.370	1.635	12.005	3.465
Norway (9)	4697	501.587	6.722	0.285	7.007	2.647
Oman	8883	454.310	5.895	1.393	7.289	2.700
Qatar	5403	454.416	8.577	0.393	8.971	2.995
Russian Federation	4780	539.000	17.210	2.196	19.407	4.405
Saudi Arabia	3759	397.238	20.255	5.740	25.995	5.099
Singapore	6116	609.090	11.646	0.409	12.055	3.472
Slovenia	4257	548.299	4.589	3.285	7.874	2.806
South Africa (9)	12514	356.375	32.590	1.692	34.282	5.855

Summary Statistics and Standard Errors for Proficiency in Biology at the Eighth Grade (Continued)

Country	Sample Size	Biology				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Sweden	4090	519.866	12.056	1.015	13.071	3.615
Thailand	6482	465.849	16.671	0.128	16.799	4.099
Turkey	6079	490.902	14.873	1.612	16.485	4.060
United Arab Emirates	18012	474.639	5.433	0.242	5.675	2.382
United States	10221	540.366	7.913	0.311	8.224	2.868
Benchmarking Participants						
Buenos Aires, Argentina	3253	391.315	18.919	3.621	22.540	4.748
Ontario, Canada	4520	537.624	6.084	2.169	8.253	2.873
Quebec, Canada	3950	527.043	17.592	0.992	18.584	4.311
Norway (8)	4795	485.645	5.238	3.317	8.555	2.925
Abu Dhabi, UAE	4838	452.247	34.637	2.190	36.827	6.069
Dubai, UAE	6149	524.797	4.340	1.417	5.757	2.399
Florida, US	2074	518.191	32.807	0.662	33.469	5.785

Summary Statistics and Standard Errors for Proficiency in Chemistry at the Eighth Grade

Country	Sample Size	Chemistry				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Australia	10338	492.654	8.721	2.403	11.124	3.335
Bahrain	4918	462.318	5.963	1.744	7.707	2.776
Botswana (9)	5964	389.927	5.977	6.948	12.925	3.595
Canada	8757	512.409	4.202	0.590	4.792	2.189
Chile	4849	438.014	10.153	2.812	12.966	3.601
Chinese Taipei	5711	578.517	5.729	1.482	7.211	2.685
Egypt	7822	394.711	16.380	8.427	24.806	4.981
England	4814	528.555	16.319	3.669	19.988	4.471
Georgia	4035	455.951	8.337	5.187	13.524	3.677
Hong Kong SAR	4155	535.921	16.457	0.695	17.152	4.142
Hungary	4893	534.210	11.925	0.901	12.826	3.581
Iran, Islamic Rep. of	6130	457.557	19.754	1.802	21.556	4.643
Ireland	4704	517.110	9.879	2.777	12.657	3.558
Israel	5512	515.961	18.132	3.170	21.302	4.615
Italy	4481	487.227	5.704	0.233	5.937	2.437
Japan	4745	569.973	4.121	1.786	5.907	2.431
Jordan	7865	437.545	11.658	2.854	14.513	3.810
Kazakhstan	4887	553.558	23.993	3.325	27.319	5.227
Korea, Rep. of	5309	550.262	5.221	1.025	6.246	2.499
Kuwait	4503	412.793	25.033	7.155	32.188	5.673
Lebanon	3873	437.808	26.117	12.358	38.475	6.203
Lithuania	4347	517.160	7.143	3.161	10.304	3.210
Malaysia	9726	473.180	15.307	0.597	15.905	3.988
Malta	3817	481.346	2.276	2.271	4.548	2.133
Morocco	13035	399.663	4.744	4.060	8.803	2.967
New Zealand	8142	497.920	10.380	1.820	12.200	3.493
Norway (9)	4697	502.692	7.437	1.185	8.622	2.936
Oman	8883	452.446	6.647	0.515	7.162	2.676
Qatar	5403	454.980	11.016	1.793	12.809	3.579
Russian Federation	4780	558.033	20.485	3.576	24.061	4.905
Saudi Arabia	3759	377.330	21.369	4.080	25.448	5.045
Singapore	6116	593.179	12.246	0.894	13.140	3.625
Slovenia	4257	552.401	5.621	1.108	6.729	2.594
South Africa (9)	12514	368.749	25.950	11.069	37.018	6.084

Summary Statistics and Standard Errors for Proficiency in Chemistry at the Eighth Grade (Continued)

Country	Sample Size	Chemistry				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Sweden	4090	512.367	11.770	0.964	12.733	3.568
Thailand	6482	444.762	20.388	3.589	23.978	4.897
Turkey	6079	493.399	19.972	1.696	21.667	4.655
United Arab Emirates	18012	480.838	6.282	3.737	10.020	3.165
United States	10221	518.907	9.225	0.942	10.167	3.189
Benchmarking Participants						
Buenos Aires, Argentina	3253	353.645	16.427	11.323	27.750	5.268
Ontario, Canada	4520	502.972	6.410	0.681	7.091	2.663
Quebec, Canada	3950	530.532	19.065	2.438	21.503	4.637
Norway (8)	4795	479.355	6.522	6.032	12.554	3.543
Abu Dhabi, UAE	4838	459.049	40.095	5.298	45.393	6.737
Dubai, UAE	6149	528.151	5.301	0.968	6.270	2.504
Florida, US	2074	497.877	42.103	4.831	46.934	6.851

Summary Statistics and Standard Errors for Proficiency in Physics at the Eighth Grade

Country	Sample Size	Physics				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Australia	10338	504.536	6.996	0.243	7.239	2.691
Bahrain	4918	461.198	4.680	1.920	6.600	2.569
Botswana (9)	5964	383.822	6.495	1.151	7.646	2.765
Canada	8757	520.592	4.290	0.678	4.968	2.229
Chile	4849	439.212	8.596	5.671	14.267	3.777
Chinese Taipei	5711	559.892	4.597	4.548	9.145	3.024
Egypt	7822	377.645	18.903	3.212	22.115	4.703
England	4814	535.260	14.424	0.863	15.287	3.910
Georgia	4035	429.363	9.164	12.174	21.338	4.619
Hong Kong SAR	4155	540.128	15.851	0.586	16.437	4.054
Hungary	4893	530.969	13.656	2.475	16.131	4.016
Iran, Islamic Rep. of	6130	475.162	17.469	1.815	19.284	4.391
Ireland	4704	524.915	7.690	2.389	10.079	3.175
Israel	5512	508.455	14.991	1.147	16.138	4.017
Italy	4481	496.322	4.978	1.134	6.113	2.472
Japan	4745	569.628	3.904	1.393	5.297	2.302
Jordan	7865	424.359	10.384	2.374	12.758	3.572
Kazakhstan	4887	543.080	23.166	1.436	24.601	4.960
Korea, Rep. of	5309	564.300	6.668	1.039	7.706	2.776
Kuwait	4503	411.414	23.741	1.955	25.697	5.069
Lebanon	3873	412.310	25.565	18.475	44.040	6.636
Lithuania	4347	512.538	8.246	4.484	12.730	3.568
Malaysia	9726	479.859	14.990	0.327	15.318	3.914
Malta	3817	490.172	1.387	1.867	3.254	1.804
Morocco	13035	395.381	4.725	3.658	8.383	2.895
New Zealand	8142	508.286	9.371	0.749	10.120	3.181
Norway (9)	4697	511.721	8.341	1.497	9.838	3.137
Oman	8883	448.825	6.037	2.924	8.961	2.993
Qatar	5403	459.268	10.325	1.190	11.515	3.393
Russian Federation	4780	547.673	16.731	1.070	17.801	4.219
Saudi Arabia	3759	385.479	21.224	7.083	28.307	5.320
Singapore	6116	608.331	9.081	0.604	9.685	3.112
Slovenia	4257	545.414	5.692	2.735	8.427	2.903
South Africa (9)	12514	359.161	28.369	1.617	29.986	5.476

Summary Statistics and Standard Errors for Proficiency in Physics at the Eighth Grade (Continued)

Country	Sample Size	Physics				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Sweden	4090	524.321	11.070	2.782	13.852	3.722
Thailand	6482	437.004	18.773	1.965	20.738	4.554
Turkey	6079	505.665	17.496	0.174	17.670	4.204
United Arab Emirates	18012	474.566	4.126	2.091	6.217	2.493
United States	10221	516.219	7.992	0.479	8.471	2.911
Benchmarking Participants						
Buenos Aires, Argentina	3253	380.540	17.197	10.011	27.208	5.216
Ontario, Canada	4520	521.493	5.961	2.588	8.548	2.924
Quebec, Canada	3950	519.554	18.463	3.755	22.217	4.714
Norway (8)	4795	483.335	5.519	1.310	6.828	2.613
Abu Dhabi, UAE	4838	453.879	25.703	3.014	28.717	5.359
Dubai, UAE	6149	524.872	4.921	0.737	5.658	2.379
Florida, US	2074	497.758	29.588	3.928	33.515	5.789

Summary Statistics and Standard Errors for Proficiency in Earth Science at the Eighth Grade

Country	Sample Size	Earth Science				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Australia	10338	521.842	6.480	1.705	8.185	2.861
Bahrain	4918	460.553	5.988	6.457	12.445	3.528
Botswana (9)	5964	368.400	6.179	3.490	9.669	3.110
Canada	8757	532.425	3.988	1.267	5.255	2.292
Chile	4849	464.041	9.049	1.369	10.418	3.228
Chinese Taipei	5711	580.830	3.804	3.398	7.202	2.684
Egypt	7822	351.216	16.086	4.741	20.827	4.564
England	4814	535.836	15.415	0.656	16.072	4.009
Georgia	4035	419.961	12.058	0.682	12.740	3.569
Hong Kong SAR	4155	557.851	17.518	0.710	18.228	4.269
Hungary	4893	521.301	12.880	2.130	15.010	3.874
Iran, Islamic Rep. of	6130	438.635	17.339	2.790	20.129	4.487
Ireland	4704	541.982	8.410	1.188	9.597	3.098
Israel	5512	492.638	13.934	1.893	15.827	3.978
Italy	4481	514.145	5.825	1.983	7.808	2.794
Japan	4745	573.941	3.372	0.702	4.073	2.018
Jordan	7865	415.842	8.334	0.872	9.206	3.034
Kazakhstan	4887	507.785	24.217	5.113	29.330	5.416
Korea, Rep. of	5309	554.368	4.424	3.073	7.496	2.738
Kuwait	4503	408.392	21.908	3.720	25.629	5.062
Lebanon	3873	365.366	28.284	13.261	41.545	6.446
Lithuania	4347	518.076	9.322	1.411	10.733	3.276
Malaysia	9726	460.456	19.807	0.750	20.557	4.534
Malta	3817	480.902	2.117	4.371	6.488	2.547
Morocco	13035	394.695	3.022	1.687	4.709	2.170
New Zealand	8142	516.666	11.422	1.603	13.025	3.609
Norway (9)	4697	522.678	9.026	2.129	11.155	3.340
Oman	8883	456.212	4.887	1.007	5.894	2.428
Qatar	5403	445.684	10.735	2.911	13.646	3.694
Russian Federation	4780	531.859	18.850	3.185	22.035	4.694
Saudi Arabia	3759	403.099	14.024	4.884	18.908	4.348
Singapore	6116	564.610	10.574	2.600	13.174	3.630
Slovenia	4257	564.497	5.897	2.322	8.219	2.867
South Africa (9)	12514	330.186	38.678	2.605	41.283	6.425

Summary Statistics and Standard Errors for Proficiency in Earth Science at the Eighth Grade (Continued)

Country	Sample Size	Earth Science				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Sweden	4090	531.890	10.760	9.420	20.180	4.492
Thailand	6482	459.171	18.168	2.365	20.532	4.531
Turkey	6079	477.376	13.527	1.480	15.007	3.874
United Arab Emirates	18012	474.829	5.040	0.667	5.707	2.389
United States	10221	534.927	8.518	1.232	9.750	3.122
Benchmarking Participants						
Buenos Aires, Argentina	3253	388.266	23.945	6.267	30.212	5.497
Ontario, Canada	4520	526.285	5.892	4.097	9.989	3.161
Quebec, Canada	3950	542.238	15.380	1.856	17.236	4.152
Norway (8)	4795	505.612	7.364	3.095	10.459	3.234
Abu Dhabi, UAE	4838	453.136	32.202	1.645	33.848	5.818
Dubai, UAE	6149	518.058	4.084	1.030	5.114	2.261
Florida, US	2074	504.699	42.265	2.377	44.642	6.681

Summary Statistics and Standard Errors for Proficiency in Science Knowing at the Eighth Grade

Country	Sample Size	Science Knowing				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Australia	10338	510.277	6.315	0.787	7.102	2.665
Bahrain	4918	461.543	4.330	1.941	6.271	2.504
Botswana (9)	5964	371.265	7.288	5.768	13.056	3.613
Canada	8757	518.051	4.019	1.284	5.303	2.303
Chile	4849	465.793	7.824	2.232	10.055	3.171
Chinese Taipei	5711	589.283	4.763	0.361	5.124	2.264
Egypt	7822	372.065	23.597	2.989	26.586	5.156
England	4814	522.604	14.362	2.327	16.689	4.085
Georgia	4035	452.299	7.787	3.418	11.204	3.347
Hong Kong SAR	4155	547.343	13.247	0.320	13.566	3.683
Hungary	4893	524.878	10.580	2.004	12.584	3.547
Iran, Islamic Rep. of	6130	455.479	17.562	5.058	22.620	4.756
Ireland	4704	523.041	8.089	2.111	10.200	3.194
Israel	5512	502.839	17.368	1.427	18.795	4.335
Italy	4481	504.522	4.440	2.339	6.779	2.604
Japan	4745	567.432	3.294	1.502	4.796	2.190
Jordan	7865	429.839	9.612	1.078	10.690	3.269
Kazakhstan	4887	528.643	29.684	4.466	34.150	5.844
Korea, Rep. of	5309	555.406	5.727	2.527	8.254	2.873
Kuwait	4503	414.748	24.732	2.649	27.381	5.233
Lebanon	3873	402.863	27.232	7.221	34.453	5.870
Lithuania	4347	513.288	6.658	3.025	9.683	3.112
Malaysia	9726	465.501	19.422	6.623	26.045	5.103
Malta	3817	467.620	1.906	2.697	4.603	2.145
Morocco	13035	395.053	4.443	0.832	5.274	2.297
New Zealand	8142	502.935	9.382	0.700	10.082	3.175
Norway (9)	4697	500.460	7.159	2.147	9.307	3.051
Oman	8883	454.641	6.733	1.772	8.505	2.916
Qatar	5403	447.927	9.836	3.404	13.240	3.639
Russian Federation	4780	557.704	21.680	5.756	27.436	5.238
Saudi Arabia	3759	394.906	16.147	8.517	24.665	4.966
Singapore	6116	593.708	10.867	0.531	11.398	3.376
Slovenia	4257	558.152	5.717	1.288	7.005	2.647

Summary Statistics and Standard Errors for Proficiency in Science Knowing at the Eighth Grade (Continued)

Country	Sample Size	Science Knowing				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
South Africa (9)	12514	337.332	36.168	8.084	44.253	6.652
Sweden	4090	519.440	10.338	0.221	10.559	3.249
Thailand	6482	469.375	18.163	0.267	18.430	4.293
Turkey	6079	489.160	18.151	1.736	19.887	4.459
United Arab Emirates	18012	477.869	5.243	1.008	6.250	2.500
United States	10221	531.693	8.558	2.977	11.536	3.396
Benchmarking Participants						
Buenos Aires, Argentina	3253	397.162	16.746	5.872	22.618	4.756
Ontario, Canada	4520	513.913	5.405	1.319	6.724	2.593
Quebec, Canada	3950	526.944	18.001	8.171	26.172	5.116
Norway (8)	4795	477.495	6.820	3.235	10.055	3.171
Abu Dhabi, UAE	4838	452.706	34.466	3.111	37.577	6.130
Dubai, UAE	6149	527.443	4.809	1.364	6.172	2.484
Florida, US	2074	510.677	39.222	8.212	47.434	6.887

Summary Statistics and Standard Errors for Proficiency in Science Applying at the Eighth Grade

Country	Sample Size	Science Applying				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Australia	10338	512.382	7.505	1.144	8.649	2.941
Bahrain	4918	464.206	4.518	1.026	5.544	2.355
Botswana (9)	5964	398.492	5.720	8.458	14.178	3.765
Canada	8757	525.506	3.963	0.657	4.619	2.149
Chile	4849	446.405	8.650	0.432	9.082	3.014
Chinese Taipei	5711	565.329	4.029	0.023	4.052	2.013
Egypt	7822	370.699	16.916	2.340	19.256	4.388
England	4814	538.348	14.569	0.839	15.408	3.925
Georgia	4035	442.193	7.451	2.371	9.822	3.134
Hong Kong SAR	4155	540.635	16.909	1.261	18.170	4.263
Hungary	4893	528.208	10.909	0.853	11.762	3.430
Iran, Islamic Rep. of	6130	457.321	15.148	1.079	16.227	4.028
Ireland	4704	532.615	8.398	0.803	9.201	3.033
Israel	5512	504.069	14.240	0.255	14.495	3.807
Italy	4481	496.404	4.708	0.992	5.700	2.387
Japan	4745	574.583	3.717	0.046	3.763	1.940
Jordan	7865	425.058	10.468	0.748	11.216	3.349
Kazakhstan	4887	535.440	19.436	0.711	20.147	4.489
Korea, Rep. of	5309	552.182	4.400	0.318	4.718	2.172
Kuwait	4503	406.171	26.442	0.836	27.278	5.223
Lebanon	3873	397.995	25.341	2.400	27.741	5.267
Lithuania	4347	516.603	8.238	3.277	11.515	3.393
Malaysia	9726	476.035	17.110	0.176	17.287	4.158
Malta	3817	488.950	1.817	1.291	3.107	1.763
Morocco	13035	391.251	4.479	3.213	7.693	2.774
New Zealand	8142	513.276	10.409	1.580	11.990	3.463
Norway (9)	4697	506.680	7.740	0.961	8.701	2.950
Oman	8883	453.715	6.145	2.510	8.654	2.942
Qatar	5403	459.776	9.241	3.665	12.905	3.592
Russian Federation	4780	538.399	18.675	2.313	20.988	4.581
Saudi Arabia	3759	382.860	22.347	1.825	24.172	4.917
Singapore	6116	599.992	10.857	0.450	11.307	3.363

Summary Statistics and Standard Errors for Proficiency in Science Applying at the Eighth Grade (Continued)

Country	Sample Size	Science Applying				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Slovenia	4257	547.132	4.731	0.355	5.086	2.255
South Africa (9)	12514	368.192	30.701	4.131	34.832	5.902
Sweden	4090	518.311	11.005	1.426	12.432	3.526
Thailand	6482	450.126	19.566	2.706	22.271	4.719
Turkey	6079	492.416	15.112	0.478	15.590	3.948
United Arab Emirates	18012	478.082	5.426	0.482	5.907	2.430
United States	10221	531.305	7.735	0.211	7.945	2.819
Benchmarking Participants						
Buenos Aires, Argentina	3253	379.487	16.323	4.076	20.399	4.517
Ontario, Canada	4520	525.284	5.553	0.241	5.794	2.407
Quebec, Canada	3950	524.383	18.436	2.737	21.173	4.601
Norway (8)	4795	488.010	5.551	1.389	6.940	2.634
Abu Dhabi, UAE	4838	456.756	34.141	0.713	34.854	5.904
Dubai, UAE	6149	525.103	4.064	0.966	5.030	2.243
Florida, US	2074	507.723	32.581	1.261	33.842	5.817

Summary Statistics and Standard Errors for Proficiency in Science Reasoning at the Eighth Grade

Country	Sample Size	Science Reasoning				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Australia	10338	512.502	6.782	1.036	7.818	2.796
Bahrain	4918	466.440	4.026	3.719	7.745	2.783
Botswana (9)	5964	389.532	6.022	0.803	6.826	2.613
Canada	8757	533.268	3.824	1.214	5.038	2.245
Chile	4849	448.496	10.340	2.692	13.032	3.610
Chinese Taipei	5711	560.304	3.352	0.524	3.876	1.969
Egypt	7822	358.937	17.228	6.029	23.257	4.823
England	4814	544.759	14.924	1.130	16.054	4.007
Georgia	4035	432.045	10.254	2.067	12.320	3.510
Hong Kong SAR	4155	550.173	17.366	2.012	19.378	4.402
Hungary	4893	523.833	13.016	1.629	14.644	3.827
Iran, Islamic Rep. of	6130	453.656	15.481	0.817	16.298	4.037
Ireland	4704	532.371	7.643	1.577	9.220	3.036
Israel	5512	510.667	15.799	3.362	19.161	4.377
Italy	4481	493.253	5.995	2.041	8.036	2.835
Japan	4745	570.297	3.800	0.795	4.595	2.144
Jordan	7865	419.446	10.097	2.784	12.881	3.589
Kazakhstan	4887	527.979	17.706	4.288	21.994	4.690
Korea, Rep. of	5309	560.369	4.944	2.857	7.801	2.793
Kuwait	4503	399.697	31.597	1.910	33.507	5.789
Lebanon	3873	381.408	31.156	8.538	39.694	6.300
Lithuania	4347	525.430	8.728	1.279	10.007	3.163
Malaysia	9726	467.218	14.268	0.966	15.233	3.903
Malta	3817	478.850	1.917	0.924	2.841	1.685
Morocco	13035	384.520	4.464	2.487	6.951	2.637
New Zealand	8142	519.563	8.972	1.691	10.663	3.265
Norway (9)	4697	518.288	7.859	1.243	9.101	3.017
Oman	8883	454.380	4.719	1.040	5.759	2.400
Qatar	5403	454.131	8.712	1.268	9.980	3.159
Russian Federation	4780	537.602	13.171	1.843	15.014	3.875
Saudi Arabia	3759	404.689	19.921	1.840	21.761	4.665
Singapore	6116	594.549	9.596	0.611	10.208	3.195

Summary Statistics and Standard Errors for Proficiency in Science Reasoning at the Eighth Grade (Continued)

Country	Sample Size	Science Reasoning				
		Mean Proficiency	Jackknife Sampling Variance	Imputation Variance	Total Variance	Overall Standard Error
Slovenia	4257	550.481	4.953	0.383	5.335	2.310
South Africa (9)	12514	350.432	28.924	2.520	31.444	5.607
Sweden	4090	526.400	13.981	1.822	15.804	3.975
Thailand	6482	447.305	15.927	0.466	16.393	4.049
Turkey	6079	495.298	15.803	2.014	17.817	4.221
United Arab Emirates	18012	473.129	4.836	1.051	5.887	2.426
United States	10221	526.422	7.294	0.494	7.787	2.791
Benchmarking Participants						
Buenos Aires, Argentina	3253	373.143	20.852	2.463	23.315	4.829
Ontario, Canada	4520	532.043	5.324	1.644	6.968	2.640
Quebec, Canada	3950	535.308	18.410	2.044	20.453	4.523
Norway (8)	4795	498.235	5.608	0.172	5.781	2.404
Abu Dhabi, UAE	4838	453.523	29.940	2.964	32.904	5.736
Dubai, UAE	6149	520.652	3.792	0.227	4.018	2.005
Florida, US	2074	505.606	34.480	6.416	40.896	6.395