

condition of education 2008



INDICATOR 19

International Comparisons of Science Literacy

The indicator and corresponding tables are taken directly from *The Condition of Education 2008*. Therefore, the page numbers may not be sequential.

Additional information about the survey data and supplementary notes can be found in the full report. For a copy of *The Condition of Education 2008*, visit the NCES website (<u>http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2008031</u>) or contact ED PUBs at 1-877-4ED-PUBS.

Suggested Citation:

Planty, M., Hussar, W., Snyder, T., Provasnik, S., Kena, G., Dinkes, R., KewalRamani, A., and Kemp, J. (2008). *The Condition of Education 2008* (NCES 2008-031). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

Academic Outcomes

International Comparisons of Science Literacy

The average U.S. science literacy score was below the average of the 30 OECD-member countries. U.S. students had a lower average score than students in 16 OECD-member countries and a higher average score than students in 5 OECD-member countries.

The 2006 Program for International Student Assessment (PISA 2006) reports on the science literacy of 15-year-olds in 57 educational jurisdictions, including the 30 member countries of the Organization for Economic Cooperation and Development (OECD) and 27 non-OECD countries and subnational education systems. PISA 2006 provides scores on three subscales of scientific competencies in addition to a combined scientific literacy score. The average U.S. science literacy score was 489, which was below the average of the 30 OECD countries (500). U.S. students had a lower average score than students in 16 OECD-member countries and a higher average score than students in 5 OECD countries. U.S. students also scored lower than their peers in 6 non-OECD jurisdictions and higher than their peers in 17 non-OECD-member jurisdictions.

On specific scientific skill subscales measured in PISA 2006, the average score of U.S. students was below the OECD average in explaining phenomena scientifically and in using scientific evidence. No measurable difference was found between U.S. students' average score and the OECD average in identifying scientific issues (see supplemental table 19-1). In a majority of participating jurisdictions (37 out of 57), including the United States, no measurable differences were found between the average combined science literacy scores of males and females (see supplemental table 19-2). Among jurisdictions where significant score differences were found by sex, 8 showed males outperforming females and 12 showed females outperforming males. In two of the three scientific skill subscales measured in PISA 2006, most jurisdictions showed a significant difference in the scores of males and females: in identifying scientific issues, females outperformed males; in explaining phenomena scientifically, males generally outperformed females.

Within the United States, the combined science literacy scores of U.S. 15-year-old Hispanic, Black, and American Indian/Alaska Native students were below the OECD average (see supplemental table 19-3). The average score of U.S. White students was above the OECD average, while the average scores of U.S. Asian, Native Hawaiian/Other Pacific Islander, and students of more than one race were not measurably different from the OECD average.

NOTE:The Organization for Economic Cooperation and Development (OECD) is an intergovernmental organization of 30 industrialized nations. The OECD average represents the average of the 30 member nations where each country is counted equally regardless of population size. The OECD average was set to 500 with a standard deviation of 100.

SOURCE: Baldi, S., Jin, Y., Skewer, M., Green, P. J., and Herget, D. (2007). *Highlights From PISA 2006: Performance of U.S. 15-Year-Old Students in Science and Mathematics Literacy in an International Context* (NCES 2008-016), table 2a, data from the Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2006.



FOR MORE INFORMATION: Supplemental Note 5 Supplemental Tables 19-1, 19-2, 19-3 INTERNATIONAL SCIENCE LITERACY PERFORMANCE: Average combined science literacy scale scores of 15-year-old students, by country or jurisdiction: 2006

Average score relative to U.S.								
average score	OECD-member country and average score							
	Finland	563	Netherlands	525	Switzerland	512	Sweden	503
ci :c .i	Canada	534	Korea, Republic of	522	Austria	511	OECD average	500
Significantly higher	Japan	531	Germany	516	Belgium	510		
nigher	New Zealand	530	United Kingdom	515	Ireland	508		
	Australia	527	Czech Republic	513	Hungary	504		
	Poland	498	Iceland	491	Spain	488		
Not significantly different	Denmark	496	United States	489	Norway	487		
amerent	France	495	Slovak Republic	488	Luxembourg	486		
Significantly	Italy	475	Greece	473	Mexico	410		
lower	Portugal	474	Turkey	424				
			Non-OECD-membe	er juris	diction and average	score		
Significantly	Hong Kong-China	542	Estonia	531	Slovenia	519		
higher	Chinese Taipei	532	Liechtenstein	522	Macao-China	511		
Not significantly	Croatia	493	Lithuania	488				
different	Latvia	490	Russian Federation	479				
	Israel	454	Jordan	422	Indonesia	393	Azerbaijan	382
Ciana (Garana)	Chile	438	Thailand	421	Argentina	391	Qatar	349
Significantly	Serbia, Republic of	436	Romania	418	Brazil	390	Kyrgyz Republic	322
lower	Bulgaria	434	Montenegro,		Colombia	388		
	Uruguay	428	Republic of	412	Tunisia	386		

Table 19-1. Average combined science literacy scale scores of 15-year-old students, by scientific skill subscale and country or jurisdiction: 2006

			Scientific skill subscale				
	Combined	Identifying	Using	Explaining			
	science	scientific	scientific	phenomena			
Country or jurisdiction	literacy score	issues	evidence	scientifically			
OECD average	500*	499	499*	500*			
OECD-member country							
Australia	527*	535*	531*	520*			
Austria	511*	505*	505*	516*			
Belgium	510*	515*	516*	503*			
Canada	534*	532*	542*	531*			
Czech Republic	513*	500	501	527*			
Denmark	496	493	489	501*			
Finland	563*	555*	567*	566*			
France	495	499	511*	481			
Germany	516*	510*	515*	519*			
Greece	473*	469*	465*	476			
Hungary	504*	483*	497	518'			
Iceland	491	494	491	488			
Ireland	508*	516*	506*	505*			
Italy	475*	474*	467*	480			
Japan	531*	522*	544*	527*			
Korea, Republic of	522*	519*	538*	512*			
Luxembourg	486	483*	492	483			
Mexico	410*	421*	402*	406*			
Netherlands	525*	533*	526*	522*			
New Zealand	530*	536*	537*	522*			
Norway	487	489	473*	495			
Poland	498	483*	494	506*			
Portugal	474*	486	472*	469*			
Slovak Republic	488	475*	478	501*			
Spain	488	489	485	490			
Sweden	503*	499	496	510*			
Switzerland	512*	515*	519*	508*			
Turkey	424*	427*	417*	423*			
United Kingdom	515*	514*	514*	517*			
United States	489	492	489	486			
See notes at end of table.							

Table 19-1. Average combined science literacy scale scores of 15-year-old students, by scientific skill subscale and country or jurisdiction: 2006 —Continued

		Scientific skill subscale					
Country or jurisdiction	Combined science literacy score	Identifying scientific issues	Using scientific evidence	Explaining phenomena scientifically			
Non-OECD-member jurisdiction				· · · · · ·			
Argentina	391*	395*	385*	386*			
Azerbaijan	382*	353*	344*	412*			
Brazil	390*	398*	378*	390*			
Bulgaria	434*	427*	417*	444*			
Chile	438*	444*	440*	432*			
Chinese Taipei	532*	509*	532*	545*			
Colombia	388*	402*	383*	379*			
Croatia	493	494	490	492			
Estonia	531*	516*	531*	541*			
Hong Kong-China	542*	528*	542*	549*			
Indonesia	393*	393*	386*	395*			
Israel	454*	457*	460*	443*			
Jordan	422*	409*	405*	438*			
Kyrgyz Republic	322*	321*	288*	334*			
Latvia	490	489	491	486			
Liechtenstein	522*	522*	535*	516*			
Lithuania	488	476*	487	494			
Macao-China	511*	490	512*	520*			
Montenegro, Republic of	412*	401*	407*	417*			
Qatar	349*	352*	324*	356*			
Romania	418*	409*	407*	426*			
Russian Federation	479	463*	481	483			
Serbia, Republic of	436*	431*	425*	441*			
Slovenia	519*	517*	516*	523*			
Thailand	421*	413*	423*	420*			
Tunisia	386*	384*	382*	383*			
Uruguay	428*	429*	429*	423*			

* Significantly different from U.S. average (p < .05).

NOTE: The Organization for Economic Cooperation and Development (OECD) is an intergovernmental organization of 30 industrialized nations. The OECD average represents the average of the 30 member nations where each country is counted equally regardless of population size. The combined science scale and the three subscales are each computed separately. Therefore, the combined science scale score is not the average of the three subscale scores. SOURCE: Baldi, S., Jin, Y., Skewer, M., Green, P.J., and Herget, D. (2007). *Highlights From PISA 2006: Performance of U.S. 15-Year-Old Students in Science and Mathematics Literacy in an International Context* (NCES 2008–016), tables 2a–d, data from the Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2006.

Table 19-2. Average combined science literacy scale scores of 15-year-old students, by scientific skill subscale, sex, and country or jurisdiction: 2006

		Scientific skill subscale						
	Combined science literacy score			ng scientific sues	Using scientific evidence		Explaining phenomena scientifically	
Country or jurisdiction	Male	Female	Male	Female	Male	Female	Male	Female
OECD average	501*	499	490	508*	498	501*	508*	493
OECD-member country								
Australia	527	527	525	546*	530	533	527*	513
Austria	515	507	495	516*	509	500	526*	507
Belgium	511	510	508	523*	512	521	510*	494
Canada	536	532	525	539*	541	542	539*	522
Czech Republic	515	510	492	511*	501	500	537 *	516
Denmark	500*	491	488	499*	490	487	512 *	491
Finland	562	565	542	568*	564	571*	571*	562
France	497	494	491	507*	509	513	489*	474
Germany	519	512	502	518*	517	513	529*	508
Greece	468	479*	453	485*	456	475*	478	475
Hungary	507	501	477	489*	497	498	529*	507
Iceland	488	494	479	509*	487	495	491	485
Ireland	508	509	508	524*	503	509	510*	501
Italy	477	474	466	483*	466	468	487*	472
Japan	533	530	513	531*	543	545	535*	519
Korea, Republic of	521	523	508	530*	535	542	517	506
Luxembourg	491*	482	477	489*	493	490	495*	471
Mexico	413*	406	418	425*	404	401	415*	398
Netherlands	528*	521	527	539*	527	524	531*	512
New Zealand	528	532	525	547*	532	541	528*	517
Norway	484	489	478	501*	469	476	498	492
Poland	500	496	476	490*	492	495	514*	498
Portugal	477	472	480	493*	473	471	477*	462
Slovak Republic	491	485	465	485*	478	478	512*	490
Spain	491	486	482	496*	484	485	499*	481
Sweden	504	503	491	507*	494	499	516*	504
Switzerland	514*	509	510	520*	520	517	517*	498
Turkey	418	430*	414	443*	410	426*	423	423
United Kingdom	520*	510	510	517*	517	510	527*	506
United States	489	489	484	500*	486	491	492*	480

See notes at end of table.

Table 19-2. Average combined science literacy scale scores of 15-year-old students, by scientific skill subscale, sex, and country or jurisdiction: 2006 —Continued

	Combined science literacy score			ng scientific sues	Using scientific evidence		Explaining phenomena scientifically	
Country or jurisdiction	Male	Female	Male	Female	Male	Female	Male	Female
Non-OECD-member jurisdiction								
Argentina	384	397*	381	408*	374	396*	387	386
Azerbaijan	379	386*	349	357*	342	347*	408	417
Brazil	395*	386	394	402*	382*	375	400*	382
Bulgaria	426	443*	411	445*	404	430*	442	447
Chile	448*	426	445	443	447*	431	448*	414
Chinese Taipei	536	529	506	512	532	532	554*	535
Colombia	393	384	401	404	386	381	388*	371
Croatia	492	494	480	507*	488	493	498*	487
Estonia	530	533	504	528*	529	533	544	537
Hong Kong-China	546	539	520	535*	544	541	560*	539
Indonesia	399	387	397	389	388	383	403*	386
Israel	456	452	451	463	456	464	451*	436
Jordan	408	436*	393	425*	385	424*	427	448
Kyrgyz Republic	319	325*	311	330*	280	295*	335	333
Latvia	486	493*	473	504*	484	497*	491*	481
Liechtenstein	516	527	508	534*	524	544	519	513
Lithuania	483	493*	463	489*	478	495*	499*	490
Macao-China	513	509	483	498*	512	511	527*	513
Montenegro, Republic of	411	413	393	409*	403	411*	421*	412
Qatar	334	365*	334	371*	307	341*	342	371
Romania	417	419	401	418*	403	412	431*	421
Russian Federation	481	478	453	472*	478	483	493*	474
Serbia, Republic of	433	438	420	441*	419	431*	444	438
Slovenia	515	523*	504	530*	510	522*	528*	518
Thailand	411	428*	394	427*	409	433*	418	421
Tunisia	383	388	373	394*	377	387*	386	381
Uruguay	427	430	418	439*	425	433	429*	418

* Significantly higher score than other sex (p < .05).

NOTE: The Organization for Economic Cooperation and Development (OECD) is an intergovernmental organization of 30 industrialized nations. The OECD average represents the average of the 30 member nations where each country is counted equally regardless of population size. The combined science scale and the three subscales are each computed separately. Therefore, the combined science scale score is not the average of the three subscale scores. SOURCE: Baldi, S., Jin, Y., Skewer, M., Green, P.J., and Herget, D. (2007). *Highlights From PISA 2006: Performance of U.S. 15-Year-Old Students in Science and Mathematics Literacy in an International Context* (NCES 2008–016), figure 6, data from the Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2006.

Table 19-3. Average combined science literacy scale scores of OECD countries and U.S. 15-year-old students, by race/ethnicity: 2006

OECD average and U.S. racial/ethnic group	Combined science literacy score
OECD average	500
White	523*
Black	409*
Hispanic	439*
Asian	499
Native Hawaiian/Other Pacific Islander	483
American Indian/Alaska Native	436*
More than one race	501

* Significantly different from OECD average (p < .05).

NOTE: The Organization for Economic Cooperation and Development (OECD) is an intergovernmental organization of 30 industrialized nations. The OECD average represents the average of the 30 member nations where each country is counted equally regardless of population size. Race categories exclude persons of Hispanic ethnicity.

SOURCE: Baldi, S., Jin, Y., Skewer, M., Green, P. J., and Herget, D. (2007). Highlights From PISA 2006: Performance of U.S. 15-Year-Old Students in Science and Mathematics Literacy in an International Context (NCES 2008–016), figure 7, data from the Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2006.

Table S19-1. Standard errors for the average combined science literacy scale scores of 15-year-old students, by scientific skill subscale and country or jurisdiction: 2006

			Scientific skill subscale				
	Combined	Identifying	Using	Explaining			
	science	scientific	scientific	phenomena			
Country or jurisdiction	literacy score	issues	evidence	scientifically			
OECD average	0.5	0.5	0.6	0.5			
OECD-member country							
Australia	2.3	2.3	2.4	2.3			
Austria	3.9	3.7	4.7	4.0			
Belgium	2.5	2.7	3.0	2.5			
Canada	2.0	2.3	2.2	2.1			
Czech Republic	3.5	4.2	4.1	3.5			
Denmark	3.1	3.0	3.6	3.3			
Finland	2.0	2.3	2.3	2.0			
France	3.4	3.5	3.9	3.2			
Germany	3.8	3.8	4.6	3.7			
Greece	3.2	3.0	4.0	3.0			
Hungary	2.7	2.6	3.4	2.6			
Iceland	1.6	1.7	1.7	1.5			
Ireland	3.2	3.3	3.4	3.2			
Italy	2.0	2.2	2.3	2.0			
Japan	3.4	4.0	4.2	3.1			
Korea, Republic of	3.4	3.7	3.7	3.3			
Luxembourg	1.1	1.1	1.1	1.1			
Mexico	2.7	2.6	3.1	2.7			
Netherlands	2.7	3.3	3.3	2.7			
New Zealand	2.7	2.9	3.3	2.8			
Norway	3.1	3.1	3.6	3.0			
Poland	2.3	2.5	2.7	2.5			
Portugal	3.0	3.1	3.6	2.9			
Slovak Republic	2.6	3.2	3.3	2.7			
Spain	2.6	2.4	3.0	2.4			
Sweden	2.4	2.6	2.6	2.9			
Switzerland	3.2	3.0	3.4	3.3			
Turkey	3.8	3.4	4.3	4.1			
United Kingdom	2.3	2.3	2.5	2.3			
United States	4.2	3.8	5.0	4.3			
See notes at end of table.							

See notes at end of table.

Table S19-1. Standard errors for the average combined science literacy scale scores of 15-year-old students, by scientific skill subscale and country or jurisdiction: 2006—Continued

		Scientific skill subscale					
Country or jurisdiction	Combined science literacy score	ldentifying scientific issues	Using scientific evidence	Explaining phenomena scientifically			
Non-OECD-member jurisdiction	•						
Argentina	6.1	5.7	7.0	6.0			
Azerbaijan	2.8	3.1	4.0	3.0			
Brazil	2.8	2.8	3.6	2.7			
Bulgaria	6.1	6.3	7.5	5.8			
Chile	4.3	4.1	5.1	4.1			
Chinese Taipei	3.6	3.7	3.7	3.7			
Colombia	3.4	3.4	3.9	3.4			
Croatia	2.4	2.6	3.0	2.5			
Estonia	2.5	2.6	2.7	2.6			
Hong Kong-China	2.5	3.2	2.7	2.5			
Indonesia	5.7	5.6	7.3	5.1			
Israel	3.7	3.9	4.7	3.6			
Jordan	2.8	2.8	3.3	3.1			
Kyrgyz Republic	2.9	3.2	3.8	3.1			
Latvia	3.0	3.3	3.4	2.9			
Liechtenstein	4.1	3.7	4.3	4.1			
Lithuania	2.8	2.7	3.1	3.0			
Macao-China	1.1	1.2	1.2	1.2			
Montenegro, Republic of	1.1	1.2	1.3	1.1			
Qatar	0.9	0.8	1.2	1.0			
Romania	4.2	3.6	6.0	4.0			
Russian Federation	3.7	4.2	4.2	3.4			
Serbia, Republic of	3.0	3.0	3.7	3.1			
Slovenia	1.1	1.4	1.3	1.5			
Thailand	2.1	2.5	2.6	2.1			
Tunisia	3.0	3.8	3.7	2.9			
Uruguay	2.7	3.0	3.1	2.9			

SOURCE: Baldi, S., Jin, Y., Skewer, M., Green, P.J., and Herget, D. (2007). Highlights From PISA 2006: Performance of U.S. 15-Year-Old Students in Science and Mathematics Literacy in an International Context (NCES 2008-016), tables 2a–d, data from the Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2006.

Table S19-2. Standard errors for the average combined science literacy scale scores of 15-year-old students, by scientific skill subscale, sex, and country or jurisdiction: 2006

			Scientific skill subscale							
	Combined science literacy score		Identifying scientific issues		Using scientific evidence		Explaining phenomena scientifically			
Country or jurisdiction	Male	Female	Male	Female	Male	Female	Male	Female		
OECD average	0.7	0.6	0.7	0.6	0.8	0.7	0.7	0.6		
OECD-member country										
Australia	3.2	2.7	3.2	2.6	3.4	3.0	3.1	2.7		
Austria	4.2	4.9	4.2	4.7	4.9	6.2	4.4	4.7		
Belgium	3.3	3.2	3.8	3.1	3.8	3.8	3.4	3.1		
Canada	2.5	2.1	2.7	2.4	2.7	2.3	2.6	2.3		
Czech Republic	4.2	4.8	4.8	5.3	5.0	5.4	4.3	4.6		
Denmark	3.6	3.4	3.5	3.2	4.1	4.0	3.8	3.7		
Finland	2.6	2.4	2.7	2.6	3.0	2.7	2.5	2.5		
France	4.3	3.6	4.6	3.7	5.0	4.2	4.2	3.4		
Germany	4.6	3.8	4.5	3.9	5.6	4.5	4.5	3.7		
Greece	4.5	3.4	4.1	3.1	5.6	3.7	4.3	3.0		
Hungary	3.3	3.5	3.4	3.3	4.1	4.5	3.2	3.6		
Iceland	2.6	2.1	2.9	2.4	3.1	2.5	2.6	2.1		
Ireland	4.3	3.3	4.4	3.5	4.8	3.5	4.4	3.5		
Italy	2.8	2.5	2.9	2.5	3.2	3.1	2.8	2.5		
Japan	4.9	5.1	5.1	6.6	5.8	6.4	4.6	4.4		
Korea, Republic of	4.8	3.9	4.9	4.2	5.2	4.5	4.8	4.0		
Luxembourg	1.8	1.8	1.7	1.8	2.0	2.2	1.8	2.0		
Mexico	3.2	2.6	2.9	2.8	3.7	3.0	3.3	2.6		
Netherlands	3.2	3.1	3.8	3.5	3.8	3.7	3.1	3.1		
New Zealand	3.9	3.6	3.7	3.7	4.4	4.3	4.0	3.6		
Norway	3.8	3.2	3.9	3.3	4.2	3.9	3.9	3.2		
Poland	2.7	2.6	2.8	2.7	3.0	3.0	2.9	2.8		
Portugal	3.7	3.2	3.6	3.4	4.2	4.0	3.6	3.0		
Slovak Republic	3.9	3.0	4.5	3.6	4.8	3.6	4.0	3.0		
Spain	2.9	2.7	2.7	2.6	3.4	3.1	2.8	2.7		
Sweden	2.7	2.9	2.9	3.1	3.1	3.2	3.0	3.5		
Switzerland	3.3	3.6	3.1	3.3	3.6	3.9	3.4	3.9		
Turkey	4.6	4.1	4.1	3.6	5.2	4.6	4.7	4.5		
United Kingdom	3.0	2.8	2.9	2.8	3.1	3.1	3.0	2.7		
United States	5.1	4.0	4.6	3.8	6.1	4.6	5.3	4.0		
See notes at end of table	5			5.0	0		5.5	1.0		

See notes at end of table.

Table S19-2. Standard errors for the average combined science literacy scale scores of 15-year-old students, by scientific skill subscale, sex, and country or jurisdiction: 2006—Continued

					Scientific s	skill subscale		
	Combined science literacy score		Identifying scientific issues		Using scientific evidence		Explaining phenomena scientifically	
Country or jurisdiction	Male	Female	Male	Female	Male	Female	Male	Female
Non-OECD-member jurisdiction								
Argentina	6.5	6.8	5.8	6.4	7.4	7.7	6.4	7.0
Azerbaijan	3.1	2.7	3.3	3.3	4.5	3.9	3.3	3.0
Brazil	3.2	2.9	3.2	3.0	3.9	3.8	3.0	2.9
Bulgaria	6.6	6.9	6.6	7.1	8.0	8.2	6.5	6.5
Chile	5.4	4.4	5.0	4.1	6.2	5.2	5.1	4.1
Chinese Taipei	4.3	5.1	4.4	5.0	4.5	5.1	4.3	5.3
Colombia	4.1	4.1	4.4	4.0	4.5	4.8	4.3	4.3
Croatia	3.3	3.1	3.5	3.1	4.1	3.5	3.2	3.3
Estonia	3.1	2.9	3.1	2.6	3.2	3.0	3.2	3.0
Hong Kong-China	3.5	3.5	4.1	4.5	3.8	4.0	3.5	3.3
Indonesia	8.2	3.7	8.0	3.6	10.2	5.0	7.0	3.8
Israel	5.6	4.2	5.9	4.0	6.7	5.4	5.4	4.0
Jordan	4.5	3.3	4.6	2.8	5.5	3.6	4.6	4.1
Kyrgyz Republic	3.6	3.0	3.6	3.3	4.7	3.9	3.9	2.9
Latvia	3.5	3.2	3.7	3.5	4.1	3.6	3.6	3.2
Liechtenstein	7.6	6.3	7.0	5.7	8.2	6.8	7.5	6.4
Lithuania	3.1	3.1	2.9	3.0	3.7	3.3	3.3	3.4
Macao-China	1.8	1.6	1.9	1.6	2.0	1.6	2.0	1.6
Montenegro, Republic of	1.7	1.7	2.0	1.8	2.0	2.0	1.8	1.7
Qatar	1.2	1.3	1.2	1.3	1.5	1.9	1.4	1.6
Romania	4.1	4.8	3.6	4.4	6.0	6.7	4.3	4.5
Russian Federation	4.1	3.7	4.6	4.1	4.5	4.4	4.0	3.4
Serbia, Republic of	3.3	3.8	3.3	3.6	4.0	4.8	3.7	3.8
Slovenia	2.0	1.9	2.0	2.0	2.3	2.0	2.3	2.2
Thailand	3.4	2.5	3.7	2.8	4.2	2.7	3.4	2.2
Tunisia	3.2	3.5	3.9	4.2	4.1	4.3	3.1	3.5
Uruquay	4.0	2.7	4.2	2.8	4.0	3.5	4.0	3.1

SOURCE: Baldi, S., Jin, Y., Skewer, M., Green, P.J., and Herget, D. (2007). *Highlights From PISA 2006: Performance of U.S. 15-Year-Old Students in Science and Mathematics Literacy in an International Context* (NCES 2008–016), tables C-9 and C-11, data from the Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2006.

Table S19-3. Standard errors for the average combined science literacy scale scores of OECD countries and U.S. 15-year-old students, by race/ethnicity: 2006

OECD average and U.S. racial/ethnic group	Combined science literacy score	
OECD average	0.5	
White	3.0	
Black	8.8	
Hispanic	4.7	
Asian	9.7	
Native Hawaiian/Other Pacific Islander	24.5	
American Indian/Alaska Native	12.0	
More than one race	8.0	

SOURCE: Baldi, S., Jin, Y., Skewer, M., Green, P. J., and Herget, D. (2007). *Highlights From PISA 2006: Performance of U.S. 15-Year-Old Students in Science and Mathematics Literacy in an International Context* (NCES 2008–016), table C-12, data from the Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2006.