Exhibit 1 Mathematics Achievement – Eighth Grade*

Country	Average Achievei	nent	Country	Upper	tage Reaching Quarter Itional Benchmark
Singapore	604		Singapore	75	
Korea, Rep. of			Korea, Rep. of	68	
Chinese Taipei	585		Hong Kong, SAR	68	
Hong Kong, SAR	582		Chinese Taipei	66	
Japan	579		Japan	64	
Belgium (Flemish)	558		Belgium (Flemish)	54	
Netherlands	540		Netherlands	45	
Slovak Republic	534		Slovak Republic	40	
Hungary			Hungary	41	
Canada	531		Slovenia	39	
Slovenia	530		Canada	38	
Russian Federation	526		Russian Federation	37	
Australia	525		Australia	37	
Finland	520		Malaysia	34	
Czech Republic	520		Czech Republic	33	
Malaysia	519		Finland	31	
Bulgaria	511		Bulgaria	30	
Latvia (LSS)	505		United States	28	
United States	502		New Zealand	25	
England	496		Latvia (LSS)	26	
New Zealand	491		England	24	
Lithuania	482		Italy	20	
Italy			Romania	19	
Cyprus	476		Israel	18	
Romania	472		Cyprus	17	
Moldova	469		Lithuania	17	
Thailand	467		Moldova	16	
Israel			Thailand	16	
Tunisia	448		Macedonia, Rep. of	12	
Macedonia, Rep. of			Jordan	11	
Turkey	_		Indonesia	7	
Jordan	428		Turkey	7	
Iran, Islamic Rep.			Iran, Islamic Rep.	5	
Indonesia	403		Tunisia	4	
Chile	392		Chile	3	
Philippines	345		Philippines	1	
Morocco	337		South Africa	1	
South Africa	275		Morocco	0	
International Avg.	487		Percent All Students	25	

Exhibit 2 Science Achievement – Eighth Grade*

Country	Average Achieven	nent	Country	Upper Qi	ge Reaching Iarter onal Benchmark
Chinese Taipei	569		Chinese Taipei	58	
Singapore	568		Singapore	56	
Hungary	552		Hungary	49	
Japan	550		Japan	48	
Korea, Rep. of	549		Korea, Rep. of	46	
Netherlands	545		Netherlands	46	
Australia	540		Australia	43	
Czech Republic	539		England	42	
England	538		Czech Republic	41	
Finland	535		Belgium (Flemish)	39	
Slovak Republic	535		Finland	39	
Belgium (Flemish)	535		Slovak Republic	39	
Slovenia	533		Slovenia	39	
Canada	533		Canada	38	
Hong Kong, SAR	530		Russian Federation	38	
Russian Federation	529		Hong Kong, SAR	35	
Bulgaria	518		Bulgaria	34	
United States	515		United States	34	
New Zealand	510		New Zealand	32	
Latvia (LSS)	503		Latvia (LSS)	24	
Italy	493		Italy	23	
Malaysia	492		Malaysia	21	
Lithuania	488		Israel	20	
Thailand	482		Lithuania	20	
Romania	472		Romania	19	
Israel	468		Macedonia, Rep. of	15	
Cyprus	460		Moldova	15	
Moldova	459		Jordan	15	
Macedonia, Rep. of	458		Thailand	15	
Jordan	450		Cyprus	12	
Iran, Islamic Rep.	448		Iran, Islamic Rep.	9	
Indonesia	435		Indonesia	6	
Turkey	433		Turkey	6	
Tunisia	430		Chile	5	
Chile	420		Philippines	3	
Philippines	345		Tunisia	3	
Morocco	323		South Africa	2	
South Africa	243		Morocco	1	
International Avg.	488		Percent All Students	25	

Exhibit 3 Trends in Mathematics Achievement Eighth Grade*

Country	1995–1999 Difference	Difference in Average Achievement Between 1995 and 1999
Latvia (LSS)	17	
Hong Kong, SAR	13	
Netherlands	11	
Canada	10	
Lithuania	10	
United States	9	
Cyprus	9	
Belgium (Flemish)	8	
Korea, Rep. of	6	
Australia	6	
Hungary	5	
Iran, Islamic Rep.	4	
Russian Federation	2	
International Avg.	2	
Slovak Republic	0	
Slovenia	-1	
Romania	-1	
England	-1	
Japan	-2	
Singapore	-4	
Italy	-6	
New Zealand	-10	
Bulgaria	-16	
Czech Republic	-26	
	-20	30 -20 -10 ₀ 10 20

Difference statistically significant



* The international report contains standard errors for all survey estimates. Latvia is annotated LSS for Latvian-Speaking Schools only. SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998–1999.

Exhibit 4 Trends in Science Achievement Eighth Grade*

Country	1995–1999 Difference	Difference in Average Achievement Between 1995 and 1999
Latvia (LSS)	27	
Lithuania	25	
Hong Kong, SAR	20	
Canada	19	
Hungary	16	
Australia	14	
Cyprus	8	
Russian Federation	7	
England	5	
Netherlands	3	
Slovak Republic	3	
International Avg.	3	
Korea, Rep. of	3	
United States	2	
Belgium (Flemish)	2	
Romania	1	
Italy	1	
New Zealand	-1	
Japan	-5	
Slovenia	-8	
Singapore	-12	
Iran, Islamic Rep.	-15	
Czech Republic	-16	
Bulgaria	-27	
	-3	30 -20 -10 0 10 20 30

Difference statistically significant



* The international report contains standard errors for all survey estimates. Latvia is annotated LSS for Latvian-Speaking Schools only. SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998–1999.

TIMSS 1999 – Eighth Grade*

• Hia	her Achie	vement	for Bovs
9-			

	Mathematics	Science
Australia		
Belgium (Flemish)		
Bulgaria		
Canada		
Chile		
Chinese Taipei		\bullet
Cyprus		
Czech Republic	lacksquare	
England		
Finland		
Hong Kong, SAR		
Hungary		\bullet
Indonesia		
Iran, Islamic Rep.	\bullet	\bullet
Israel	ightarrow	
Italy		
Japan		
Jordan		
Korea, Rep. of		
Latvia (LSS)		•
Lithuania		
Malaysia		
Moldova		
Morocco		
Netherlands		
New Zealand		
Philippines		
Romania		
Russian Federation		
Singapore		
Slovak Republic		
Slovenia		
South Africa		
Thailand		
Tunisia		
Turkey		
United States		



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Exhibit 5 Teachers' Confidence in Their Preparation to Teach – Eighth Grade*

Mathematics

Country	by	cent of Students Taught Teachers with High nfidence
Macedonia, Rep. of	92	•
United States	87	•
Slovak Republic	87	•
Cyprus	87	•
Jordan	86	•
New Zealand	85	•
Czech Republic	85	•
Netherlands	81	•
Romania	79	•
Australia	77	•
Finland	76	•
Malaysia	75	•
Israel	75	•
Turkey	75	•
Iran, Islamic Rep.	72	•
Chinese Taipei	71	•
Canada	71	• I
Indonesia	69	•
Singapore	66	•
Belgium (Flemish)	65	•
Latvia (LSS)	64	•
Hong Kong, SAR	61	•
Italy	60	•
Morocco	57	
Bulgaria	54	•
Hungary	54	•
South Africa	54	
Moldova	52	
Korea, Rep. of	48	
Philippines	41	
Slovenia	34	
Tunisia	25	
Chile	24	
Thailand	18	
Japan	8	•
England	-	
Lithuania	-	
Russian Federation	-	
International Avg.	63	
international Avg.	05	20 40 60 80 10

Macedonia, Rep. of Czech Republic		Teachers with High nfidence
Czech Republic	53	•
	40	•
Indonesia	39	•
Turkey	36	•
Jordan	32	•
Cyprus	31	
New Zealand	29	
Romania	29	
South Africa	29	
United States	27	
Morocco	26	
Bulgaria	23	
Australia	22 20	
Belgium (Flemish) Iran, Islamic Rep.	20	
Netherlands	19	•
Singapore	18	•
Finland	16	•
Moldova	16	•
Canada	16	•
Israel	15	•
Philippines	15	•
Chinese Taipei	14	 •
Italy	13	•
Thailand	13	•
Malaysia	9	•
Hong Kong, SAR	9	
Hungary	8	
Latvia (LSS) Chile	8 7	•
Korea, Rep. of	6	
Tunisia	6	
Japan	3	•
England	_	
Lithuania	-	
Russian Federation	-	
Slovak Republic	_	
Slovenia	-	
International Avg.	20	



* The international report contains standard errors for all survey estimates. Latvia is annotated LSS for Latvian-Speaking Schools only. A dash (-) indicates data are not available

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998–1999.