

Exhibit 13.12: TIMSS Advanced 2015 Linear Transformation Constants for Physics Achievement Scores

Overall Physics	TIMSS Advanced 2008 Published Scores		TIMSS Advanced 2008 Re-Scaled Scores		$A_{k,i}$	$B_{k,i}$
	Mean	Standard Deviation	Mean	Standard Deviation		
PV1	498.80619	105.32288	0.20174	0.87253	474.45477	120.70987
PV2	499.21094	104.17338	0.19521	0.87781	476.04490	118.67351
PV3	498.78611	105.03022	0.19684	0.87638	475.19542	119.84490
PV4	498.93406	104.72493	0.19855	0.87162	475.07806	120.14980
PV5	498.86035	105.38060	0.20000	0.88298	474.99048	119.34691