

Beating the Odds: Academic Resilience Around the World

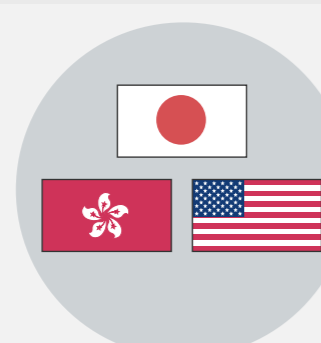
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Exploring *academic resilience* in education systems around the world can help guide education policy. Here, data from the 2011 eighth grade Trends in International Mathematics and Science Study (TIMSS) are used to identify factors contributing to academic resilience.

Academically resilient students are defined as being academically successful despite their disadvantaged circumstances.¹

IN TIMSS 2011



59

59 education systems administered the TIMSS assessment.



300,000+

More than 300,000 8th grade students were assessed.



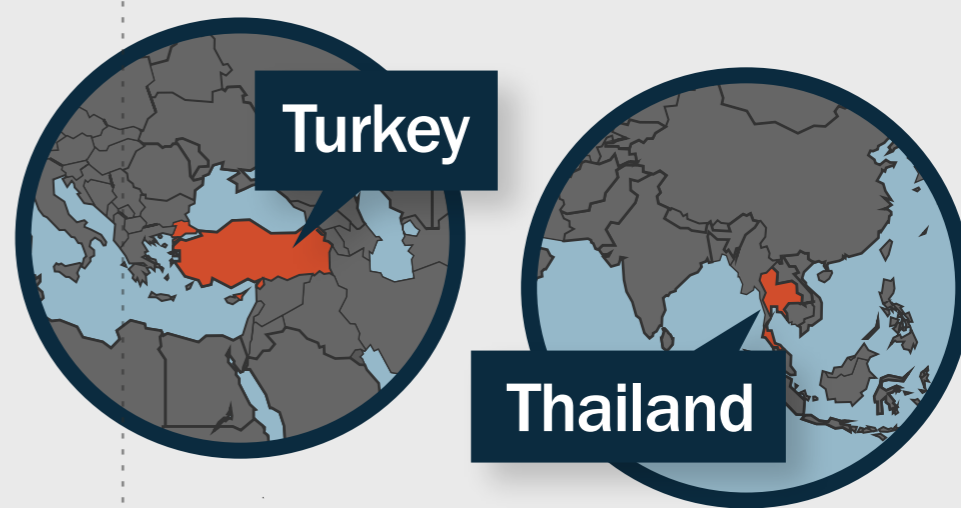
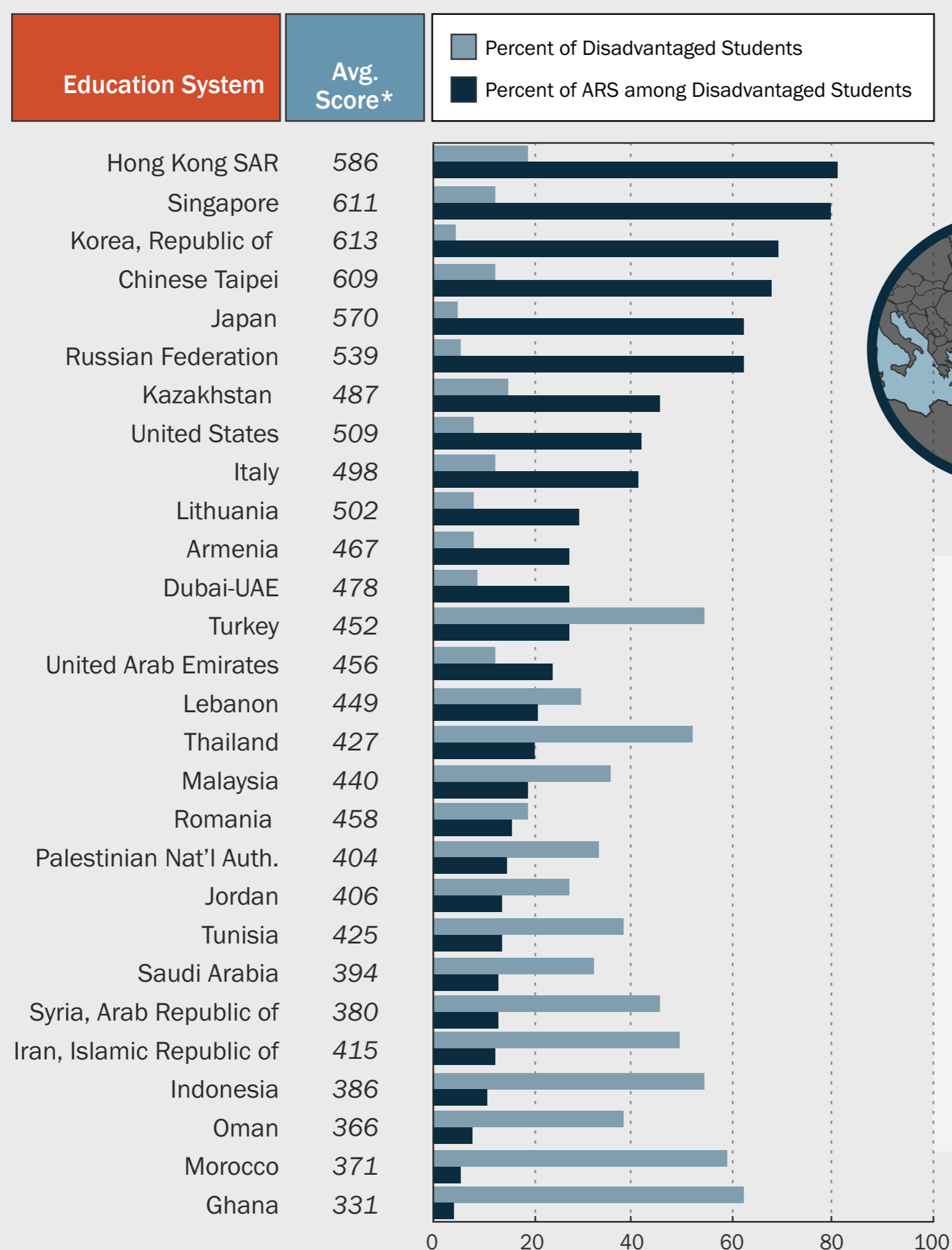
28

28 of these systems had more than 100 academically resilient students (ARS).²



HOW PREVALENT ARE ACADEMICALLY RESILIENT STUDENTS?

IEA studied the systems with more than 100 ARS. In general, it found that education systems with lower percentages of disadvantaged students had larger percentages of ARS. Additionally, the education systems with the largest percentages of ARS tend to be those with higher mean TIMSS scores overall.



Exceptions to these general trends include **Turkey** and **Thailand**, in which more than half of the student population is socioeconomically disadvantaged (54 and 52 percent, respectively). However, despite this — and not being among top performers in TIMSS 2011 — both countries have relatively larger percentages of academically resilient students (27 and 20 percent, respectively).

So, while having a larger percentage of disadvantaged students in general appears to be a challenge to the performance of those students as well as for the education system overall, in some cases this challenge is overcome.

* 2011 TIMSS Mathematics Average Score in Grade 8

¹ Disadvantaged students are defined as those in the “few resources” category of the Home Educational Resources (HER) index, which is a composite measure in the TIMSS 2011 International Database. On average, these students reported that they had 25 or fewer books in the home, they had neither their own room nor an internet connection, and neither parent had gone beyond upper-secondary education.

² Academically resilient students (ARS) are defined as disadvantaged students who performed at or above the TIMSS 2011 Intermediate International Mathematics Benchmark (475). The description of this benchmark is provided on page 125 of the TIMSS 2011 Mathematics Report at <http://timssandpirls.bc.edu/timss2011/international-results-mathematics.html>.

Source: Erberber, E., Stephens, M., Mamedova, S., Ferguson, S., & Kroeger, T. (2015, March). Socioeconomically disadvantaged students who are academically successful: Examining academic resilience cross-nationally. IEA's Policy Brief Series, No. 5, Amsterdam, IEA, http://www.iea.nl/policy_briefs.html.