

Conclusion

Achieve's analysis of the mathematics and science standards on behalf of the Asia-Pacific Economic Cooperation (APEC) and the United States Department of Education indicates there is a set of common content expectations for students – although the size and nature of the common set varies across grade spans and disciplines. Achieve also found that most of the economies that participated in the study place the greatest emphasis on the lower levels of performance or cognitive demand. In mathematics, for instance, the emphasis is on Recall and Using Routine Procedures, while in science the emphasis is on Acquiring Knowledge and Basic Inquiry Skills.

While Achieve found common aspects regarding the content and performance skill demands, qualitatively, Achieve found a great deal of variation across economies in terms of the structure, volume and level of detail of their standards, as well as the level of emphasis each places on particular areas of the two disciplines. Given the different educational, economic and cultural contexts in each economy, there was little reason to expect uniformity.

While standards define expectations for what students must know and be able to do, provide a framework for the development of textbooks and other instructional materials, and help to shape teacher preparation and ongoing training, standards are not the only mechanism for communicating what students are expected to know. In particular, assessments (both classroom and standardized tests) are often regarded as the de facto student expectations in school. Curriculum and instruction too – what occurs in the classroom from day to day – may be influenced, but is not bound by the content contained in the standards. Therefore, this analysis, focused exclusively on standards, necessarily provides an important but incomplete snapshot of the expectations that economies from around the world hold for their students. Future study of curriculum and assessment – as well as a comprehensive analysis of the pathways students take in secondary school – would be a useful complement to this analysis.

We hope this analysis will provide a lens through which the APEC economies can examine the similarities and differences among their standards in their efforts to determine the extent to which they have consistent expectations of students in an increasingly flat world.