

## ***NAEP Achievement Levels: Interpret and Use with Caution***

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**Nobody Does It Better.** No test developer, whether a commercial group or a government agency, expends more resources or makes a more concentrated effort than the National Assessment Governing Board to implement generally accepted methods when setting student performance levels (Cizek, 2001). Nonetheless, even NAEP achievement levels must be interpreted and used with great caution.

**Achievement Level Descriptors.** The table illustrates the difference between the NAEP Proficient achievement level and NAEP proficiency in the subject (i.e., the NAEP Basic achievement level) via English language descriptors collected from a variety of NAEP sources and plausible classroom letter grades. They help define and clarify how NAEP’s Proficient and Basic achievement levels should be understood, interpreted, and used.

NAEP Achievement Level	English Language Descriptors Used to Explain the Meaning of the NAEP Achievement Levels	Letter Grade (A-F)	
		Stoneberg (2007)	Ravitch (2012)
<i>Advanced</i>		A to A+	A+
<b><u>Proficient</u></b>	Some of the best students you know Many words and terms above grade level Mastery of complex material Higher than grade level performance	B+ to A	A
<i>Basic</i>	<b><u>Proficiency in subject</u></b> (common language meaning) Overall understanding of grade appropriate text More than minimal competency	C- to B	B and C
<i>Below Basic</i>	Minimal competency	F to D+	Concern

**Fundamentally Flawed.** A National Academy of Sciences (NAS) external evaluation in 1998 was not kind to NAEP's "achievement level scores" (Pellegrino, et al, 1998). NAS found that achievement level-setting procedures were fundamentally flawed [i.e., “not scientific” because the cut-scores cannot be replicated]. The judgment tasks were difficult and confusing; rater’s judgments of different item types were internally inconsistent; appropriate validity evidence for the cut-scores was lacking; and the process had produced unreasonable results. NAS recommended that the achievement levels be used only on a developmental basis.

**Trial Basis Only.** A National Center for Education Statistics (NCES) web page entitled Status of Achievement Levels (2013; which has been deleted without the Commissioner’s determination) provided this statement about using the NAEP achievement levels. The strongly edited statement is consistent with the findings and recommendations from the National Academy of Sciences’ external evaluation report:

*Federal law requires NAEP achievement levels be used on a trial basis until the Commissioner of Education Statistics determines that the achievement levels are "reasonable, valid, and informative to the public." So far, no Commissioner has made such a determination. Thus, achievement levels should continue to be interpreted and used with caution. The National Assessment Governing Board and NCES believe that the achievement levels are useful for reporting trends in the educational achievement of students in the United States.*

**Not for Trend Comparisons.** Statistical studies focusing on NAEP achievement level scores have not supported their use for reporting trends. Trend comparisons require both technical care and substantive consideration. As useful as PAC [percent above cut-score] statistics have been in communicating test results to the public, their properties as trend statistics render them ill-suited for trend comparisons (Ho, 2007; National Academies of Sciences, Engineering, and Medicine, 2017).

## References (URLs updated December 26, 2022)

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